



*is time hoping these few lines may
all well we received your letter*



Retirement

The concept . . . TIMELESS

The experience . . . UNIQUE



Missouri State Employees' Retirement System
A Component Unit of the State of Missouri
Comprehensive Annual Financial Report
Fiscal Year Ended June 30, 2013


WE ARE HERE FOR YOUR BENEFIT.

Retirement

The concept . . . TIMELESS

The experience . . . UNIQUE

A large, elegant, black decorative flourish that starts from the bottom left, loops under the word 'Retirement', and extends to the right, ending under the word 'UNIQUE'.

Gary Findlay
Executive Director

Gary Irwin
Chief Finance Officer

Missouri State Employees' Retirement System
A Component Unit of the State of Missouri

Comprehensive Annual Financial Report
Fiscal Year Ended June 30, 2013

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* *Missouri State Employees' Plan*



Mission

MOSERS exists to advance the financial security of its members.

Vision

We endeavor to:

Exceed customer expectations
Educate stakeholders
Ensure sound investment practices
Encourage responsible
funding of the plan
through a commitment to
EXCELLENCE ALWAYS.

Values

Quality • Respect • Integrity • Openness • Accountability





Introductory

SECTION

Introductory Section

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Professional Awards

Certificate of Achievement for Excellence in Financial Reporting

MOSERS' Comprehensive Annual Financial Report for the fiscal year ended June 30, 2012, was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). This was the 24th consecutive year that MOSERS has received this prestigious award. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report (CAFR). The CAFR must satisfy generally accepted accounting principles, applicable legal requirements and GFOA reporting standards.

Public Pension Standards Award

MOSERS also received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award in 2012, in recognition of meeting the professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

LETTER OF TRANSMITTAL



Missouri State Employees' Retirement System
Mailing Address: PO Box 209, Jefferson City, MO 65102-0209
Phone: (573) 632-6100 • (800) 827-1063 | Fax: (573) 632-6103
MO Relay: 7-1-1 (Voice) • (800) 735-2966 (TTY)
Website: www.mosers.org | Email: mosers@mosers.org
Visit us at 907 Wildwood Drive, Jefferson City, MO

October 15, 2013

The Board of Trustees
Missouri State Employees' Retirement System
907 Wildwood Drive
Jefferson City, MO 65109

Dear Board Members:

It is my pleasure to submit the 2013 comprehensive annual financial report (CAFR) of the Missouri State Employees' Retirement System (MOSERS). In the public retirement fund universe, change at a rapid pace has been the norm rather than the exception. In order to manage this change, it is important to prepare for and execute plans that will help us sustain success into the future. Measuring performance and results is also a large part of managing change and has served us well in our commitment to quality service in a cost-effective manner for our stakeholders. Setting the bar high and raising it on an ongoing basis is ingrained within the MOSERS culture. The primary purpose of this report is to look at a point in time snapshot of the last fiscal year as it provides useful measurements of how we got to where we are. It is important, however, to not only understand where we are and how we got here, but also our purpose in doing so. At MOSERS, our mission highlights this purpose: "MOSERS exists to advance the financial security of its members."

In FY13, MOSERS' investments generated approximately \$780 million or a return of 10.4% (net of fees) on behalf of our members and Missouri taxpayers. The total fund return exceeded its policy benchmark by 2.2%. The incremental return (actual return vs. policy benchmark) resulted in an additional \$165 million for the fund this year.

Report Contents and Structure

This CAFR is designed to satisfy the reporting requirements of state law as stipulated in Sections 104.480, 104.1006, and 105.661 of the Revised Statutes of Missouri (RSMo), as amended. Management has prepared the basic financial statements of MOSERS and is responsible for the integrity and fairness of the information presented. Some amounts included in the financial statements and elsewhere may be based on estimates and judgments. These estimates and judgments were products of the best business practices available. The accounting policies followed in preparing the basic financial statements conform with U.S. generally accepted accounting principles. Financial information presented throughout the CAFR is consistent with that which is displayed in the basic audited financial statements.

Ultimate responsibility for the CAFR and the basic financial statements rests with the board of trustees. The executive director and the rest of the MOSERS staff assist board members in fulfilling their responsibilities. Systems of internal controls and supporting procedures are maintained to provide assurances that transactions are authorized, assets are safeguarded, and proper records are maintained. These controls include standards in the hiring and training of employees, the establishment of an organizational structure, and the communication

of policies and guidelines throughout the organization. Internal controls are reviewed through internal audit programs and all internal audit reports are submitted to the board of trustees. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived and the valuation of cost and benefits requires estimates and judgments by management.

The system's external auditor, Williams-Keepers LLC, conducted an independent audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit is described in the *Independent Auditors' Report* on page 19 in the *Financial Section*. Management has provided the external auditors with full and unrestricted access to MOSERS' staff to discuss their audit and related findings, to facilitate independent validation of the integrity of the plan's financial reporting, and the adequacy of the internal controls in place.

The *Financial Section* also contains the *Management Discussion and Analysis* that serves as an introduction to and overview of the financial statements. MOSERS is considered a component unit of the state of Missouri for financial reporting purposes and, as such, the financial statements in this report are also included in the *State of Missouri's Comprehensive Annual Financial Report*.

Profile of MOSERS

MOSERS is a body corporate and an instrumentality of the state of Missouri that was established in 1957 by state law, under the management of a board of trustees, for the purpose of providing retirement benefits to most state employees. MOSERS provides for those retirement benefits through pension trust funds, in keeping with the fiduciary responsibilities of the board members and staff.

Subsequent to its creation, MOSERS was further assigned the task of providing most members of the retirement system with term life and long-term disability insurance. MOSERS operates an internal service fund for the state of Missouri and contracts with insurance companies to provide those benefits through insured defined benefit plans. MOSERS maintains membership information on those eligible for the insurance coverage and collects and remits the premiums to the insurance company. Currently, the life and long-term disability insurance plans are insured through The Standard insurance company.

The State of Missouri's Deferred Compensation Plan is accounted for as an internal service fund and is administered by MOSERS through the use of ICMA-RC as a third-party record keeper. Investment options are made available to participants who retain responsibility for the investment of their individual accounts.

Strategic Planning

During FY13, a new strategic planning initiative was implemented which included an in-depth SWOT (strengths, weaknesses, opportunities, threats) and an external trends analysis that led to the identification of six pathways to excellence. These pathways direct staff goals which include leadership evolution, customer service, workload demands, internal communications, stakeholder communications, and asset guardianship. This initiative also resulted in a new mission and vision statement that incorporates the core values presently in place for staff.

Budgeting

The MOSERS Board of Trustees annually approves the administrative expense budgets for MOSERS' operations and investment departments. MOSERS' governance policy requires an exception report to the board of trustees by the executive director if expenses are expected to exceed budgeted amounts by 10% and to seek board approval in advance for any unscheduled salary increases or staff expansions not included in the budget approved by the board before the beginning of the fiscal year. There were no budget exceptions to report for the year. New budgeting software was implemented during FY13 and will be used in the next budgeting cycle to increase efficiency and effectiveness of the process.

Succession Planning

Succession planning strategies have been in place since FY10 with an emphasis on employee development and retention, as well as ways in which institutional knowledge could be captured. This program includes a selection process for high potential employees who are interested in preparing for higher level positions at MOSERS. The program was designed to capitalize on the experience that current staff already possesses and prepare them to move into higher level positions. In addition to training and job shadowing, each participant is required to initiate and complete an individual capstone project that would be of benefit to MOSERS. The fourth year of succession planning includes one employee who is continuing to work through a development plan. The fifth group will be recruited during the first half of FY14. The importance of this type of program becomes clear when considering the fact that MOSERS presently has 13 employees who are eligible to retire and an additional 15 who will become eligible to retire between now and September 1, 2018, representing in total, over one-third of our workforce.

Risk Management Enhancements

Risk management is a critical component of the investment management program. Charlesworth & Associates, MOSERS' insurance risk management consultant, has reported that insurance coverage has been designed around the risks to which the system is exposed and the philosophy regarding funding of potential loss. The insurance risk management consultant helps us ensure that coverage is consistent with industry standards and that the best rates available are in place. Additionally, it is the consultant's opinion that MOSERS continues to excel in risk management and there have been no asset protection exceptions during the year.

Business Continuity Plan Implementation

MOSERS business continuity plans are the first line of defense in the aftermath of a business interruption. This year, MOSERS' business continuity steering committee (BCSC) developed and implemented a budget to fund training requirements, business continuity exercises, maintenance and upgrades of contracts, and business continuity related purchases, which improves readiness in the event of a business interruption. Additional steps were taken to improve business continuity by adding a new committee member to the BCSC who is working towards business continuity planning certification and upgrading the telephone infrastructure to voice over IP (VoIP) to allow for remote voice communications and improved overall system flexibility. In addition, the point-to-point wireless connectivity between MOSERS and the warm-site was upgraded. The new system provides ten times the bandwidth which helps ensure that systems stay synchronized. As part of MOSERS' business continuity plan, two exercises were conducted this year focusing on the decision-making process and functional procedures.

Deferred Compensation and College and University Retirement Plans

MOSERS is responsible for oversight of the State of Missouri Deferred Compensation Plan (The Plan) and the College and University Retirement Plan (CURP), which includes, but is not limited to, contracting with record keepers, plan administrators and investment managers, providing communications and ensuring that the plans are in compliance with federal and state law. Deferred compensation plan participation is voluntary, for eligible members, including college and university employees. An automatic enrollment feature was added for new employees into the State of Missouri Deferred Compensation Plan starting after July 1, 2012.

As of June 30, 2013, there were 55,651 participants (35,885 active and 19,766 terminated/retired) in the State of Missouri Deferred Compensation Plan. Of those employees eligible, 57% (includes college and university employees) participate in the plan. Plan assets total \$1,637,496,636. ICMA-RC is the plan record keeper. The plan consists of 13 custom-designed target date investment options, a stable income fund, a MOSERS Investment Portfolio (MIP), a brokerage window, and 30 closed legacy mutual fund options (consisting of a variety of domestic equity, international equity, fixed income, and lifestyle/balanced mutual funds).

Active employee plan participation was up 4.9% from FY12. Total participants (both active and terminated) increased by 2,617 during the fiscal year. This increase is a direct result of the automatic enrollment.

The Plan added the MIP fund option to the line-up on July 1, 2012. This option gives plan participants the ability to purchase units of the MOSERS investment portfolio. Assets in the MIP as of June 30, 2013, total \$2,015,286 held by 79 investors; 57 of those participants have also set up future allocations to the MIP.

The board also has responsibility for oversight of the College and University Retirement Plan (CURP). CURP is a 401(a) defined contribution plan for education employees hired after June 30, 2002, by the regional colleges and universities that participate in MOSERS. The employer contribution rate is 1% of payroll less than the normal cost of the defined benefit plan for general state employees. TIAA-CREF is responsible for third-party administration and for providing investment products and education of members in the plan. Current plan assets total \$44,226,328 with 1,996 participants.

Technology Updates

To increase building security this year, MOSERS implemented an automated employee notification system, which enables MOSERS' leadership to disseminate real-time messages, alerts and mass voice and text notifications across phone, SMS text and email. In addition, the MOSERS website was updated to enhance service to members and an intranet re-write was completed. The new intranet site is more user-friendly and incorporates dynamic content utilizing our content management system, including a customizable dashboard that allows MOSERS employees to track up-to-date member statistics and trends.

Cost Effectiveness Measurement (CEM)

Customer service is a critical element in MOSERS' performance objectives. One of the ways MOSERS measures overall performance is through the Cost Effectiveness Measurement, Inc. (CEM) pension administration benchmarking analysis. CEM evaluated 61 leading pension systems, including systems in the United States, Canada, United Kingdom, Denmark and the Netherlands. MOSERS' peer group included 11 U.S. public pension plans that are identified as the most relevant peer group based on membership size and system assets. This year, the CEM results indicated that MOSERS' service ranked number one again in the peer group and was the second highest in CEM's global universe of 61 plans. MOSERS' service score was 91, well above the peer median of 80 and the all CEM average of 75. In an effort to keep costs down and enhance our processing time, we continue to implement changes that simplify processes, eliminate programs, and/or provide enhanced security.

CEM measures the cost of service on an annual per participant basis (including active members and benefit recipients). We have 90,000 such participants while the median number within our peer group is 149,000 and the peer average is 128,000. Our cost of \$71 per active member and annuitant was below the peer median of \$74 and well below the peer average of \$121. In addition, our overall complexity score remains below the peer average (with simplicity being viewed as a positive).

Summary of Financial Information

The following schedule is a comparative summary of the pension trust funds' additions and deductions for the years ended June 30, 2013, and June 30, 2012.

	Pension Trust Funds	
	Year Ended June 30, 2013	Year Ended June 30, 2012
Additions	\$1,108,047,038	\$460,966,483
Deductions	(684,725,496)	(646,164,323)
Net change	\$ 423,321,542	\$(185,197,840)

The following schedule is a comparative summary of the revenues and expenses of the *Internal Service Funds* (insurance and deferred compensation activity) for the years ended June 30, 2013, and June 30, 2012.

	Internal Service Funds	
	Year Ended June 30, 2013	Year Ended June 30, 2012
Operating revenues	\$ 29,441,757	\$46,686,989
Operating expenses	(29,767,094)	(46,857,332)
Nonoperating revenue	12,075	11,068
Net change	\$ (313,262)	\$ (159,275)

Additional financial information can be found in the *Management Discussion and Analysis Report*, the financial statements, and schedules included in the *Financial Section* of this report.

Investments

MOSERS' investments generated a return of 10.4% (net of fees) for FY13 up from 2.2% in FY12. Additional information regarding the investments of the pension trust funds can be found in the *Investment Section* of this report.

In December 2012, a new organizational structure went into effect for the investment department creating staff teams that are focused on specific components of the portfolio. Each of these teams are led by a managing director responsible for managerial and investment decision-making tasks. To accommodate this departmental change as well as the ongoing development of the investment internship program, the board approved the investment department relocating to leased space within close proximity of the Wildwood facility, which occurred in the spring of 2013.

The new portfolio structure shifts from a return-driven process towards a risk-driven process. The risk-based allocation approach focuses on fundamental economic factors like growth and inflation as well as other factors with expected return premia such as credit, carry, and illiquidity. In order for the portfolio to generate similar expected returns to the equity-centric portfolio, modest leverage must be utilized on some risk factors in order for them to pull their share of the weight from a return perspective. The portfolio is being transitioned as opportunities present themselves.

Plan Financial Condition

The funding objective of MOSERS' pension trust funds is to meet long-term benefit promises through contributions that remain approximately level as a percent of member payroll over decades of time. Historical information relating to progress in meeting this objective is presented on pages 49-52. During the year ended June 30, 2013, the funded ratio of the Missouri State Employees' Plan, which covers 109,808 participants, decreased from 73.2% to 72.7%, primarily the result of the unfavorable investment market experience in previous years and the strengthening of demographic assumptions. Funding of the Judicial Plan, which covers 930 participants, began on July 1, 1998. During the year ended June 30, 2013, the funded ratio of the Judicial Plan increased from 24.7% to 25.5%. Additional information regarding the financial condition of the pension trust funds can be found in the *Actuarial Section* of this report.

Awards

MOSERS was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA) for its comprehensive annual financial report for the fiscal year ended June 30, 2012. This was the 24th consecutive year that MOSERS has received this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. The report must satisfy generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a

period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

MOSERS received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award, in recognition of meeting the professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

These prestigious awards recognize MOSERS for financial and professional standards of excellence. These notable awards can be viewed on page 5.

In FY13, MOSERS received the first place award from the National Association of Government Communicators (NAGC) for the 2012 Comprehensive Annual Financial Report (CAFR). The NAGC Blue Pencil & Gold Screen Awards competition salutes superior communications efforts of government agencies and recognizes the people who create them. The NAGC is a national not-for-profit professional network of federal, state and local government employees who disseminate information within and outside government. NAGC awards underscore the association's high standards of professionalism in public service.

GFOA also presented MOSERS with an Award for Outstanding Achievement in Popular Annual Financial Reporting for our summary annual report. This was the 17th year that MOSERS received this award.

These awards are gratifying to MOSERS' staff and increase MOSERS' stature as an industry leader.

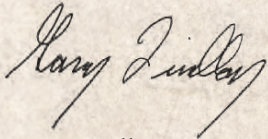
Conclusion

This report is a product of the combined efforts of MOSERS' staff and advisors functioning under your leadership. It is intended to provide complete and reliable information that facilitates the management decision making process, serves as a means for determining compliance with legal requirements, and allows for the evaluation of responsible guardianship of system funds. As in the past, MOSERS received an unqualified opinion from our independent auditor on the financial statements included in this report. The opinion of the independent auditor is on page 19.

Copies of this report are provided to the Governor, State Auditor, the Joint Committee on Public Employee Retirement of the General Assembly, and all state agencies that form the link between MOSERS and its members. Their cooperation contributes significantly to the success of MOSERS.

I would like to take this opportunity to express my gratitude to you, the staff, the advisors, and other people who have worked so diligently to assure the continued successful operation of the system. Thank you for assisting the system in raising the bar with the realization that retirement as a concept is timeless, but here at MOSERS we strive to deliver benefit services in a way that makes the experience...unique.

Respectfully submitted,



Gary Findlay
Executive Director

LETTER FROM THE BOARD CHAIR



Missouri State Employees' Retirement System
Mailing Address: PO Box 209, Jefferson City, MO 65102-0209
Phone: (573) 632-6100 • (800) 827-1063 | Fax: (573) 632-6103
MO Relay: 7-1-1 (Voice) • (800) 735-2966 (TTY)
Website: www.mosers.org | Email: mosers@mosers.org
Visit us at 907 Wildwood Drive, Jefferson City, MO

October 15, 2013

Dear Members:

On behalf of the board of trustees, I am pleased to present the *MOSERS Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2013. While the focus of this report is on information related to the financial status of your retirement system, it also highlights other changes that occurred during the year. The *Financial Section* of this report is prepared in accordance with generally accepted accounting principles and is appropriately attested to by the system's independent certified public accountants.

MOSERS' investments generated a return of 10.4%, or approximately \$780 million, net of fees, for FY13. The total fund return exceeded its policy benchmark by 2.2%, adding nearly \$165 million more than if the portfolio had been invested passively in the same asset allocation mix.

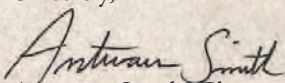
Your retirement system continues to achieve high marks in the delivery of customer service to our members. One of the ways operational performance is measured is through the Cost-Effectiveness Measurement, Inc. (CEM) pension administration benchmarking analysis. CEM evaluated 61 leading pension systems, including systems in the U.S., Canada, Australia, the Netherlands, and Denmark. MOSERS' peer group included 11 U.S. public pension plans that are identified as our most relevant peer group based on membership size and system assets. This year, the CEM results indicated that MOSERS' service ranked number one again in our peer group with lower than average costs and was ranked the second highest in CEM's global universe of 61 plans.

I'm pleased to report that the Executive Director of MOSERS, Gary Findlay, was the recipient of the 2012 Institutional Investor's Money Management Letter Lifetime Achievement Award. This *Institutional Investor News* award is considered to be the standard setter for excellence in the financial services industry. In the 18 years since Mr. Findlay became director of MOSERS, the fund's assets have compounded at an annualized rate of 9% net of fees, outperforming the fund's benchmark by 1.2% annually, and placing MOSERS' performance among the very best. Information regarding this prestigious award can be accessed on MOSERS' website. Also last fall *aiCIO*, an investor publication by Asset International, presented their list of the 100 most influential chief investment officers (CIOs) in the world. That listing included 19 public retirement fund CIOs in the United States. Our CIO, Rick Dahl, ranked 27th in total and 4th among the other U.S. public fund CIOs selected. He was the most mentioned by his peers as deserving the recognition.

The board experienced some turnover this year. On behalf of the board and staff, I would like to thank Marty Drewel for his hard work and contributions while serving as a trustee to the system. Trustees devote many hours in fulfilling their fiduciary duties and serve with no remuneration.

I wish to thank the board of trustees for their contributions this year and to MOSERS' staff for maintaining the high level of expertise and professionalism required in the pursuit of excellence in all of the activities in which we are involved. Lastly, I wish to express my gratitude to you, our members, for continuing your public service during these difficult budgetary times. Your dedication and commitment to providing services to Missouri citizens is greatly appreciated. Both the board of trustees and staff look forward to serving your future needs. If you have any questions regarding this report or any other aspect of MOSERS, please contact us at MOSERS, P.O. Box 209, Jefferson City, Missouri 65102 or call (800) 827-1063. Our website can also be visited at www.mosers.org.

Sincerely,


Antwaun Smith, Chair
Board of Trustees

BOARD OF TRUSTEES



Antwaun Smith - Chair
Governor Appointed Member



Lori Neidel - Vice Chair
Governor Appointed Member



Laura Davis
Elected Active Member



Representative Caleb Jones
House Appointed Member



Senator Joe Keaveny
Senate Appointed Member



Senator John Lamping
Senate Appointed Member



Representative Mike Leara
House Appointed Member



Donald Martin
Elected Retired Member



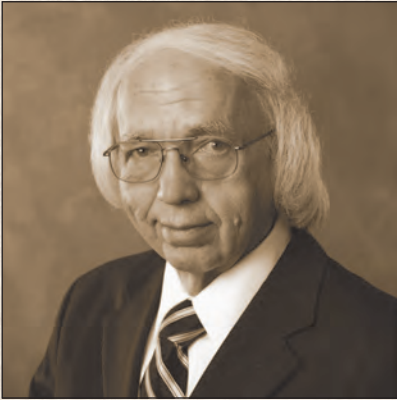
Commissioner of Administration
Doug Nelson
Ex-Officio Member



State Treasurer
Clint Zweifel
Ex-Officio Member

Vacant
Elected Active Member

ADMINISTRATIVE ORGANIZATION



Gary Findlay - Executive Director

Greg Beck - *Chief Auditor*

Judy Delaney - *Legislative & Policy Coordinator*

Jake McMahon - *Chief Counsel*

Lisa Verslues - *Human Resources Coordinator*



**Karen Stohlgren - Deputy Executive Director
Chief Operations Officer (COO)**

Stacy Gillmore - *Manager of Information Technology*

Gary Irwin - *Chief Finance Officer*

Lori Leeper - *Operations Project Coordinator/Board Secretary*

JoAnn Looten - *Manager of Records & Facility*

Krista Myer - *Manager of Communications*

Pam Palmquist - *Manager of Benefit Services*



**Rick Dahl - Deputy Executive Director
Chief Investment Officer (CIO)**

Shannon Davidson - *Managing Director – Investment Risk & Operations*

Seth Kelly - *Managing Director – Beta Balanced Strategies*

Jim Mullen - *Manager – Derivatives & Internal Management*

Pat Neylon - *Manager – Liquid Alpha Strategies*

Scott Peppard - *Manager – Illiquid Alpha Strategies*

Christine Rackers - *Manager – Investment Policy & Communications*

Cindy Rehmeier - *Manager – Defined Contribution Plans*

Tricia Scrivner - *Managing Director – Alpha Strategies*



ABOUT MOSERS

Purpose

MOSERS was established September 1, 1957, and is governed by laws of the state of Missouri.

MOSERS provides retirement, survivor, and disability benefits, as well as life insurance and deferred compensation plan management to its members.

MOSERS administers retirement benefits for most state employees, including members of the Missouri General Assembly, elected state officials, and judges. MOSERS is responsible for administering the law in accordance with the expressed intent of the Missouri General Assembly and bears a fiduciary obligation to the state employees who are its members and beneficiaries.

Administration

State law provides that responsibility for the administration of MOSERS is vested in an 11-member board of trustees. The board is comprised of:

- Two members of the Senate appointed by the President Pro Tem of the Senate.
- Two members of the House of Representatives appointed by the Speaker of the House.
- Two members appointed by the Governor.
- The State Treasurer.
- The Commissioner of Administration.
- Three other system members: two active members elected by the active and terminated-vested members, and one retiree elected by the retired members.

Introductory Section

The day-to-day management of MOSERS is delegated to the executive director who is appointed by the board and serves at its pleasure. The executive director acts as advisor to the board on all matters pertaining to the system, contracts for professional services, and employs the remaining staff needed to manage the system.

Organization

The executive director, COO, and CIO are responsible for planning, organizing, and administering the operations of the system under the broad policy guidance and direction of the board. MOSERS' office is divided into seven administrative sections that perform specific functions for the system.

Executive Services

The executive services team provides administrative support by assisting the executive director, COO, and CIO in the major legal, operational, and oversight functions of the retirement, benefit, and communication programs.

Accounting

Accounting is responsible for all financial records of the programs administered by MOSERS, including the preparation of financial and statistical reports. Accounting performs the purchasing functions for MOSERS and interfaces with the investment custodian, Office of Administration accounting, various payroll and personnel departments, life insurance companies, actuaries, banks, and the IRS on all accounting-related issues.

Benefit Services

Benefit services is responsible for contact with the members regarding the benefit programs directly administered by MOSERS, which include retirement, life insurance, and long-term disability.

Communications

Communications is responsible for providing clearly written and attractively designed publications, and conducting educational seminars to inform members about benefit programs administered by MOSERS. Communications and the information technology section are jointly responsible for MOSERS' website.

Information Technology

Information technology is responsible for establishing and maintaining the automated systems that support MOSERS' daily operations. MOSERS takes full advantage of technology to automate and integrate almost every aspect of the business. Key technologies include a document imaging system, a custom-built benefits management system and a computer-based telephone system.

Investments

The primary function of the investment department is to provide internal investment management and consulting services to the board and the executive director. Other functions include hiring and terminating external investment managers, making strategic allocation decisions, analyzing the overall asset allocation, rebalancing the portfolio, and informing and advising the board and executive director on financial and economic developments which may affect the system. The investment staff also works with the general asset consultant, the hedge fund asset consultant and the executive director in selecting and monitoring external money managers. Information regarding the investment professional service providers can be found in the *Investment Section*.

Records and Facility Management

Records and facility management is responsible for establishing and maintaining all membership records including maintenance of the data on the electronic imaging system, balancing payroll deductions for insurance, and entering the payroll, service, and leave data into the system's retirement database. This section is also responsible for mail services and general building maintenance.

OUTSIDE PROFESSIONAL SERVICES

Actuary

- Gabriel, Roeder, Smith & Co.

Actuarial Audit

- Cavanaugh Macdonald Consulting, LLC

Auditor

- Williams-Keepers, LLC

Legal Counsel

- Thompson Coburn, LLP

Master Custodian

- Bank of New York Mellon

Investment Management Consultants

- Blackstone Alternative Asset Management, LP
Hedge Fund Asset Consultant
- Summit Strategies Group
General Asset Consultant
- TimberLink Consulting, LLC
Timberland Consultant

Risk Management Consultant

- Charlesworth & Associates, LC

Third-Party Administrators

- ICMA-RC
Deferred Compensation Plan
- The Standard
Disability and Life Insurance
- TIAA-CREF
College & University Retirement Plan

Securities Lending Advisor

- Deutsche Bank AG, New York Branch

Information Technology Consulting

- Avtex Solutions, Inc.
- Huber & Associates, Inc.
- Qflow Systems, LLC

Investment Risk Management

- MSCI BarraOne

Investment Advisors

- Actis Capital, LLP
- Alinda Capital Partners, LLC
- Alliance Bernstein Defined Contribution Investments
- American Industrial Partners
- AQR Capital Management, LLC
- Ashmore Investment Management, Ltd.
- Axiom Asia Private Capital
- Axxon Management, Ltda.
- Bayview Asset Management, LLC
- BlackRock Financial Management, Inc.
- Blackstone Alternative Asset Management, LP
- Blackstone Real Estate Advisors
- Blakeney Management
- Brevan Howard Capital Management, Ltd.
- Bridgepoint Capital, Ltd.
- Bridgewater Associates, LP
- CarVal Investors, LLC
- Catalyst Capital Group, Inc.
- Catterton Partners
- Claren Road Asset Management, LLC
- COMAC Capital, LLP
- CQS, Cayman, LP
- Davidson Kempner Capital Management, LLC

Outside Professional Services continued on page 18

Introductory Section

Outside Professional Services continued from page 17

- DDJ Capital Management, LLC
- Development Partners International
- Diamondback Capital Management, LLC
- DRI Capital, Inc.
- Elliott International Capital Advisors, Inc.
- Eminence Capital
- Empyrean Capital Partners, LP
- Eton Park Capital Management, LP
- Farallon Capital Management, LLC
- Fortress Investment Group, LLC
- Glenview Capital Management, LLC
- Global Forest Partners, LP
- Grantham, Mayo, Van Otterloo & Co., LLC
- Harvest Fund Advisors, LLC
- HBK Investments, LP
- ING Investment Management
- JLL Partners
- King Street Capital Management, LP
- Linden Capital Partners, LLC
- Mast Capital Management, LLC
- Merit Energy Company
- MHR Fund Management, LLC
- Millennium Technology Ventures, LP
- Morant Wright Management, Ltd.
- Nephila Capita, Ltd.
- New Mountain Capital, LLC
- Nippon Value Investors
- NISA Investment Advisors, LLC
- Oaktree Capital Management, LP
- Pacific Alternative Asset Management Company, LLC
- Pershing Square Capital Management, LP
- Pharo Global Advisors Ltd.
- Resource Management Service, LLC
- Silchester International Investors
- Silver Creek Capital Management, LLC
- Silver Lake Partners
- Silver Point Capital, LP
- SIRIS Partners, LP
- Stepstone Group
- State Street Global Advisors
- Stone Harbor Investment Partners, LP
- The Campbell Group, LLC
- TPG Credit Management, LP
- TPG-Axon Capital Management, LP
- Veritas Capital Fund Management, LLC
- Viking Global Investors, LP
- Visium Asset Management, LP



Financial
SECTION

Financial Section

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INDEPENDENT AUDITORS' REPORT



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The Board of Trustees
Missouri State Employees' Retirement System

We have audited the accompanying financial statements of the pension trust and internal service funds of the Missouri State Employees' Retirement System (MOSERS), a component unit of the State of Missouri, as of and for the year ended June 30, 2013, and the related notes to the financial statements, which collectively comprise the MOSERS' basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the pension trust and internal service funds of MOSERS as of June 30, 2013, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in conformity with U.S. generally accepted accounting principles.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 21-25 and the schedules of funding progress and employer contributions on pages 49 and 50 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context.

We have applied certain limited procedures to the required supplementary information in accordance with U.S. generally accepted auditing standards, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise MOSERS' basic financial statements. The *Introductory, Investment, Actuarial and Statistical Sections* and the additional information presented on pages 53-60 are presented for purposes of additional analysis and are not a required part of the financial statements.

The additional information presented on pages 53-60 is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with U.S. generally accepted auditing standards. In our opinion, the additional information presented on pages 53-60 is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Grilliams Keepers LLC

October 15, 2013

MANAGEMENT DISCUSSION AND ANALYSIS

The management of the Missouri State Employees Retirement System (MOSERS or the system) offers readers of the financial statements this narrative overview of the financial activities of MOSERS for the years ended June 30, 2013 and 2012. This narrative is intended to supplement the system's financial statements. Readers are encouraged to consider the information presented here in conjunction with the financial statements that begin on page 26.

GASB 63 introduces and defines the elements of deferred inflows and outflows as an acquisition or consumption of net assets that is applicable to a future reporting period. MOSERS implemented this standard in 2013. However, because MOSERS does not currently have deferred inflow or outflow transactions, the implementation is reflected as a redefinition of the term "Net Assets" to "Net Position" in the *Pension Trust Fund Financial Statements*.

During FY13, MOSERS' trust was converted to a master trust and began unitizing investments for the purpose of allowing participants in the state of Missouri Deferred Compensation Plan the option to invest in units of MOSERS investment portfolio (MIP). For financial reporting purposes, investments throughout this CAFR are reported in whole and include .03% or \$2,015,286 of the units invested in the MIP by Deferred Compensation Plan participants.

The basic financial statements contained in this section of the comprehensive annual financial report consist of:

The *Statements of Fiduciary Net Position* which report the pension trust funds' assets, liabilities, and resulting net position where Assets – Liabilities = Net Position held in trust for pension benefits available at the end of the fiscal year. It is a snapshot of the financial position of the pension trust funds at that specific point in time.

The *Statements of Changes in Fiduciary Net Position* which summarize the pension trust funds' financial transactions that have occurred during the fiscal year where Additions – Deductions = Net Change in Net Position. It supports the change that has occurred to the prior year's net position on the *Statements of Fiduciary Net Position*.

The *Balance Sheet* of the internal service funds is similar to the *Statements of Fiduciary Net Position* in that it is also a snapshot of the financial position of the internal service funds where Net Position + Liabilities = Assets.

The *Statements of Revenues, Expenses, and Changes in Net Position* of the internal service funds is similar to the *Statements of Changes in Fiduciary Net Position* in that it also reports a summary of the financial activity that occurred over the period of the fiscal year where Revenues – Expenses = Net Revenue and supports the change to the prior year's net position.

The *Statements of Cash Flows* of the internal service funds report the financial transactions of the fiscal year of the internal service funds on a cash basis. It is similar to the *Statements of Revenues, Expenses and Changes in Net Position*; however, the focus of this statement is on the change to cash balances with accrued income and expense items eliminated.

The *Notes to the Financial Statements* are an integral part of the above financial statements and include additional information not readily evident in the statements themselves.

The required supplementary *Management Discussion and Analysis* information, the *Required Supplementary Information*, and *Additional Financial Information* following the *Notes to the Financial Statements* provide detailed historical information considered useful in evaluating the condition of the plans administered by MOSERS.

Financial Highlights

MOSERS' overall pension fund financial condition improved during the fiscal year ended June 30, 2013 (FY13). Pension fund net position increased by \$423,321,542 during the fiscal year, primarily as result of a increase in investment values and their associated income. The investments of the pension trust funds generated a 10.4% return (net of fees) for the year, up from the prior year's return of 2.2%.

The MSEP experienced a decrease in its funded status from 73.2% to 72.7% and the Judicial Plan experienced a increase in its funded status from 24.7% to 25.5%. In July 2012, the board voted to reduce the nominal investment return assumption from 8.5% to 8% and to adopt assumptions for wage inflation and price inflation of 3% and 2.5%, respectively. In June 2013, the board approved a change to reduce the amortization period from an open 30 years to a closed 30 years beginning July 1, 2014, and will be reduced by one year for each subsequent annual valuation until the period reaches one year and will be reexamined in conjunction with the 2030 actuarial valuation to determine if it should be reduced below 15 years or changed to an open 15 years. Also at the June 2013 meeting, the board approved a change related to the smoothing method to determine the actuarial value of assets using the investment gains or losses, relative to what would have been earned at the assumed rate on the actuarial value of assets, and combine that amount with any previously unrecognized investment gains or losses. One-third of that total amount would then be recognized in the current year with two-thirds deferred for future recognition. In no event would the actuarial value of assets as of the valuation date be more than 125% or less than 80% of the market value of assets.

The internal service fund's net position decreased by \$263,950. The goals of the internal service funds are to maintain the funds at a level that enables it to meet its obligations of contracting the premiums for the life and long-term disability insurance benefits for state employees; maintain the membership data necessary to track the premiums due from the state and its employees and payable to the insurance carrier; and manage the state employees deferred compensation program.

The following schedules present summary comparative financial statements of the pension trust funds and internal service funds for FY13 and FY12. For each schedule there is a brief summary of the significant changes noted in those schedules.

Pension Trust Funds

Summary Comparative Statements of Fiduciary Net Position

The largest components of the net position of the pension trust funds are the investments, cash and short-term investments, and securities lending collateral.

The increase in the fair value of investments is primarily attributable to the favorable market conditions experienced during FY13, as evidenced by a increase in MOSERS' total investment return from 2.2% last year to 10.4% this year, adding an additional \$147.6 million to the fund in FY13. MOSERS invests in a portfolio that has large allocations to high cost asset classes that are predominately actively managed but remains low cost within the investment style. Detailed information regarding MOSERS' investment portfolio is included in the *Investment Section* of this report.

Investment income payable increased and investment purchases payable decreased as a result of the timing of investment purchases.

The decrease in securities lending collateral is primarily attributable to lower lendable assets in the lending portfolio at fiscal year end. Margins were lower than the previous fiscal year resulting in lower income generation. As of fiscal year end, approximately 3% of the collateral received has been invested in asset-backed and corporate bonds, up slightly from 2% the prior year. The invested collateral went from \$2 million above the liability at the end of last fiscal year to \$7 million above the liability in FY13.

Cash and short-term investments increased due to multiple factors including the timing of investment funding and additional cash necessary to fund the derivative investments within the new investment strategy from a return-driven investment process towards a risk-driven process.

Summary Comparative Statements of Changes in Fiduciary Net Position

The slight increase in contributions received is primarily attributable to an increase in the contribution rate for the general employees group from 13.97% to 14.45%.

The increase in investment income in FY13 from FY12 is attributable to the generally favorable market conditions experienced by the investments of the fund. The slight decrease in securities lending income is primarily due to decreased utilization rates due to less lendable assets in the lending portfolio at fiscal year end. Margins were lower than the previous fiscal year resulting in lower income generation. The *Investment Section* of this report contains additional information regarding investments and securities lending activity.

The total benefit payments increase is due to a net increase in the number of benefit recipients plus cost-of-living adjustments provided to existing benefit recipients. Detailed schedules of these changes can be viewed on pages 114-119 of the *Actuarial Section* of this report.

Service transfers are dependent on the number of members electing to transfer their service out of MOSERS. Refunds are dependent on the number of members of the MSEP 2011 tier who have terminated employment and are eligible to request a refund, and members prior to September 1, 1972 that MOSERS locates who have contributions remaining in the system. In FY13, service transfers and refunds increased due to a greater number of non-vested MSEP 2011 participants choosing to receive a refund. In FY13, 41 members elected to transfer their service out of MOSERS.

Pension Trust Funds — Summary Comparative Statements of Fiduciary Net Position

	As of June 30, 2013	As of June 30, 2012	Amount of Change	Percentage Change
Cash and short-term investments	\$1,202,548,184	\$ 891,202,655	\$311,345,529	34.94%
Receivables	46,416,125	59,162,673	(12,746,548)	(21.54)
Investments	6,922,334,141	6,757,240,840	165,093,301	2.44
Invested securities lending collateral	461,766,766	692,476,483	(230,709,717)	(33.32)
Capital assets	3,554,938	3,064,311	490,627	16.01
Other assets	105,201	41,772	63,429	151.85
Total assets	8,636,725,355	8,403,188,734	233,536,621	2.78
Administrative expense payable	2,337,560	1,674,515	663,045	39.60
Investment purchase payable	11,485,382	12,932,642	(1,447,260)	(11.19)
Investment income payable	49,527,001	0	49,527,001	100.00
Securities lending collateral	454,384,699	690,440,025	(236,055,326)	(34.19)
Other liabilities	11,934,319	16,421,986	(4,487,667)	(27.33)
MOSERS investment portfolio liability (MIP)	2,015,286	0	2,015,286	100.00
Total liabilities	531,684,247	721,469,168	(189,784,921)	(26.31)
Net positions held in trust for pension benefits	\$8,105,041,108	\$7,681,719,566	\$423,321,542	5.51

Pension Trust Funds — Summary Comparative Statements of Changes in Fiduciary Net Position

	Year Ended June 30, 2013	Year Ended June 30, 2012	Amount of Change	Percentage Change
Contributions	\$ 318,818,502	\$ 300,348,132	\$ 18,470,370	6.15%
Investment income - investing activities	787,712,220	158,626,338	629,085,882	396.58
Investment income - securities lending activities	1,020,380	1,537,701	(517,321)	(33.64)
Miscellaneous income	495,936	454,312	41,624	9.16
Total additions	1,108,047,038	460,966,483	647,080,555	140.37
Benefits	674,511,179	638,343,863	36,167,316	5.67
Service transfers and refunds	2,534,006	711,889	1,822,117	255.96
Administrative expenses	7,680,311	7,108,571	571,740	8.04
Total deductions	684,725,496	646,164,323	38,561,173	5.97
Net increase (decrease)	423,321,542	(185,197,840)	608,519,382	328.58
Net position beginning of year	7,681,719,566	7,866,917,406	(185,197,840)	(2.35)
Net positions held in trust for pension benefits	\$8,105,041,108	\$7,681,719,566	\$423,321,542	5.51

Internal Service Funds

Summary Comparative Balance Sheets Analysis

The increase in premiums receivable is attributable to normal fluctuations in the month-end balance of life and long-term disability insurance premiums receivable during the year, which are dependent on the number of members participating and amount of their coverage.

The decrease in investments is attributable to normal fluctuations in the investment in overnight repurchase agreements of the funds held pending transmission to the life and long-term disability insurance company.

The increase in premiums payable is attributable to normal fluctuations in the month-end balances of premiums payable for the year, similar to the fluctuations of the premiums receivable.

Other liabilities decreased primarily as a result of the timing of reimbursements due to the pension trust funds for the internal service fund's portion of shared expenses which had not been transferred at year end.

Summary Comparative Statements of Revenues, Expenses, and Changes in Net Position Analysis

Premium receipts and premium disbursements increased slightly due to normal fluctuations in the amount of optional life insurance coverage selected by state employees.

The decrease in deferred compensation receipts and disbursements is attributable to a change in the collection process where the third-party administrator now collects deferred compensation contributions directly from employers instead of passing collections through MOSERS. Total participants (both active and terminated) increased by 2,617 during the fiscal year as a result of the automatic enrollment feature in place for new employees hired July 1, 2012 and after. The state of Missouri has not contributed an employer match since March 2010.

Miscellaneous income decreased as a result of a change in the way revenue sharing is done between the third-party administrator and MOSERS. MOSERS will receive income upon request in the future from the third-party administrator as the residual fund balance is depleted. Premium refunds increased slightly as a result of timing differences resulting from changes in insurance coverage.

Administrative expenses increased primarily as a result of the increase in reimbursements to the pension trust funds for the internal service fund's portion of shared expense and increased expenses related to State of Missouri Deferred Compensation Plan.

Summary Comparative Statements of Cash Flows Analysis

The decrease in cash flows from operating activities is primarily attributable to a decrease in cash payments received from employers and members over that of FY12 and increased payments to outside carriers for premium disbursements.

The increase in cash flows from noncapital financing activities is primarily attributable to an increase in the amount of life and long-term disability premium refund checks that remained outstanding at year end.

The increase in cash flows from investing activities is attributable to several factors including the decrease in outflows for net purchase and maturities of overnight repurchase agreements of \$362,935, the increase of \$1,007 in investment income from higher rates and the purchase of capital assets for the deferred compensation plan of \$2,296.

Request for Information

This financial report is designed to provide a general overview of the system's finances for all those interested in the system. Questions concerning any of the information provided in this report or request for additional information should be addressed to MOSERS at P.O. Box 209, Jefferson City, MO 65102 or by email at mosers@mosers.org.

Internal Service Funds — Summary Comparative Balance Sheets

	As of June 30, 2013	As of June 30, 2012	Amount of Change	Percentage Change
Premiums receivable	\$ 970,466	\$ 959,003	\$ 11,463	1.20%
Investments	3,258,256	3,532,260	(274,004)	(7.76)
Fixed assets net of accumulated depreciation	3,617	5,026	(1,409)	(28.03)
Total assets	4,232,339	4,496,289	(263,950)	(5.87)
Premiums payable	3,639,910	3,346,314	293,596	8.77
Other liabilities	115,029	359,313	(244,284)	(67.99)
Total liabilities	3,754,939	3,705,627	49,312	1.33
Unrestricted net position	477,400	790,662	(313,262)	(39.62)
Total liabilities and net position	\$4,232,339	\$4,496,289	\$(263,950)	(5.87)

Internal Service Funds — Summary Comparative Statements of Revenues, Expenses, and Changes in Net Position

	Year Ended June 30, 2013	Year Ended June 30, 2012	Amount of Change	Percentage Change
Premium receipts	\$28,961,637	\$28,578,326	\$ 383,311	1.34%
Deferred compensation receipts	0	17,500,476	(17,500,476)	(100.00)
Miscellaneous income	480,120	608,187	(128,067)	(21.06)
Total operating revenue	29,441,757	46,686,989	(17,245,232)	(36.94)
Premium disbursements	28,930,950	28,556,036	374,914	1.31
Deferred compensation disbursements	0	17,500,476	(17,500,476)	(100.00)
Premium refunds	30,687	22,291	8,396	37.67
Administrative expenses	805,457	778,529	26,928	3.46
Total operating expenses	29,767,094	46,857,332	(17,090,238)	(36.47)
Net operating income (loss)	(325,337)	(170,343)	(154,994)	(90.99)
Investment income	12,075	11,068	1,007	9.10
Net revenues over expenses	(313,262)	(159,275)	(153,987)	(96.68)
Net position beginning of year	790,662	949,937	(159,275)	(16.77)
Net position end of year	\$ 477,400	\$ 790,662	\$ (313,262)	(39.62)

Internal Service Funds — Summary Comparative Statements of Cash Flows

	Year Ended June 30, 2013	Year Ended June 30, 2012	Amount of Change	Percentage Change
Cash flows from operating activities	\$(289,369)	\$81,794	\$(371,163)	(453.78)%
Cash flows from noncapital financing activities	5,585	1,086	4,499	414.27
Cash flows from investing activities	283,784	(82,888)	366,672	442.37
Net change in cash	0	(8)	8	
Cash balances beginning of year	0	8	(8)	
Cash balances end of year	\$ 0	\$ 0	\$ 0	

BASIC FINANCIAL STATEMENTS

Statements of Fiduciary Net Position
Pension Trust Funds - As of June 30, 2013

	MSEP	Judicial Plan	Total
Assets			
Cash and short-term investments	\$1,186,197,360	\$ 16,350,824	\$1,202,548,184
<u>Receivables</u>			
State contributions	11,285,702	1,170,162	12,455,864
Investment sales	33,397,778	460,363	33,858,141
Other	100,731	1,389	102,120
Total receivables	44,784,211	1,631,914	46,416,125
<u>Investments at fair value</u>			
U.S. treasury securities	585,684,418	8,073,212	593,757,630
Corporate bonds	34,104,695	470,107	34,574,802
Convertible bonds	645,557	8,899	654,456
Government bonds & gov't mortgage-backed securities	69,055,858	951,882	70,007,740
Common stock	372,578,946	5,135,716	377,714,662
Limited partnerships	4,804,739,651	66,229,663	4,870,969,314
Bank loans	97	1	98
Collateralized mortgage obligations	27,978,810	385,667	28,364,477
Foreign currency	7,755,666	106,906	7,862,572
International equities	920,738,869	12,691,681	933,430,550
U.S. dollar-denominated international corporate bonds	4,929,885	67,955	4,997,840
Total investments	6,828,212,452	94,121,689	6,922,334,141
Invested securities lending collateral	455,488,209	6,278,557	461,766,766
<u>Capital assets</u>			
Land	263,652	3,634	267,286
Building and building improvements	4,004,971	55,205	4,060,176
Furniture, fixtures, and equipment	1,677,492	23,123	1,700,615
Software	257,679	3,552	261,231
Total capital assets	6,203,794	85,514	6,289,308
Accumulated depreciation	(2,697,191)	(37,179)	(2,734,370)
Net capital assets	3,506,603	48,335	3,554,938
Prepaid expenses	103,771	1,430	105,201
Total assets	8,518,292,606	118,432,749	8,636,725,355
Liabilities			
Administrative expense payable	2,305,777	31,783	2,337,560
Investment purchases payable	11,329,217	156,165	11,485,382
Securities lending collateral	448,206,515	6,178,184	454,384,699
Investment income payable	48,853,592	673,409	49,527,001
Investment incentive fees payable	10,776,072	148,540	10,924,612
Employee vacation and overtime liability	995,978	13,729	1,009,707
MOSERS investment portfolio liability (MIP)	1,987,885	27,401	2,015,286
Total liabilities	524,455,036	7,229,211	531,684,247
Net Position			
Net investment in capital assets	3,506,603	48,335	3,554,938
Unrestricted	7,990,330,967	111,155,203	8,101,486,170
Net positions held in trust for pension benefits	\$7,993,837,570	\$111,203,538	\$8,105,041,108

See accompanying *Notes to the Financial Statements*.

BASIC FINANCIAL STATEMENTS

Statements of Changes in Fiduciary Net Position

Pension Trust Funds - For Year Ending June 30, 2013

	MSEP	Judicial Plan	Total
Additions			
<u>Contributions</u>			
State contributions	\$ 274,655,284	\$ 28,330,649	\$ 302,985,933
Employee contributions	9,698,883	211,936	9,910,819
Member purchases of service credit	3,475,123	0	3,475,123
Service transfer contributions	2,446,627	0	2,446,627
Total contributions	290,275,917	28,542,585	318,818,502
<u>Investment income</u>			
<i>From investing activities:</i>			
Investing activity income:			
Net appreciation in fair value of investments	744,745,953	10,265,754	755,011,707
Interest	25,616,671	353,106	25,969,777
Dividends	16,127,814	222,310	16,350,124
Swap income	84,548,307	1,165,434	85,713,741
Other	44,352,758	611,369	44,964,127
Total investing activity income	915,391,503	12,617,973	928,009,476
Investing activity expenses:			
Management fees	(132,037,948)	(1,820,042)	(133,857,990)
Custody fees	(480,065)	(6,617)	(486,682)
Consultant fees	(710,982)	(9,800)	(720,782)
Performance measurement fees	(469,086)	(6,466)	(475,552)
Internal investment activity expenses	(4,691,580)	(64,670)	(4,756,250)
Total investing activity expenses	(138,389,661)	(1,907,595)	(140,297,256)
Net income from investing activities	777,001,842	10,710,378	787,712,220
<i>From securities lending activities:</i>			
Securities lending income	1,722,200	23,739	1,745,939
Securities lending expenses:			
Borrower rebates	(485,363)	(6,690)	(492,053)
Management fees	(230,331)	(3,175)	(233,506)
Total securities lending activities expenses	(715,694)	(9,865)	(725,559)
Net income from securities lending activities	1,006,506	13,874	1,020,380
Total net investment income	778,008,348	10,724,252	788,732,600
Miscellaneous income	489,193	6,743	495,936
Total additions	1,068,773,458	39,273,580	1,108,047,038
Deductions			
Benefits	580,649,266	27,802,871	608,452,137
BackDROP & lump sum benefits	66,059,042	0	66,059,042
Service transfer payments	1,911,665	0	1,911,665
Contribution refunds	622,341	0	622,341
Administrative expenses	7,575,883	104,428	7,680,311
Total deductions	656,818,197	27,907,299	684,725,496
Net increase (decrease) in net position	411,955,261	11,366,281	423,321,542
Net positions held in trust for pension benefits:			
Beginning of year	7,581,882,309	99,837,257	7,681,719,566
End of year	\$7,993,837,570	\$111,203,538	\$8,105,041,108

See accompanying Notes to the Financial Statements.

BASIC FINANCIAL STATEMENTS

Balance Sheets

Internal Service Funds - As of June 30, 2013

	Life & LTD	Deferred Compensation	Total
Assets			
Premiums receivable	\$ 970,466	\$ 0	\$ 970,466
Due to/(due from)	(513,472)	513,472	0
Investments at fair value	3,258,256	0	3,258,256
Fixed assets	0	7,772	7,772
Accumulated depreciation	0	(4,155)	(4,155)
Total assets	\$3,715,250	\$517,089	\$4,232,339
Liabilities and net position			
<i>Liabilities</i>			
Premiums payable	\$3,639,910	\$ 0	\$3,639,910
Checks outstanding net of deposits	8,211	0	8,211
Other	106,818	0	106,818
Total liabilities	3,754,939	0	3,754,939
<i>Unrestricted net position (deficit)</i>	(39,689)	517,089	477,400
Total liabilities and net position	\$3,715,250	\$517,089	\$4,232,339

See accompanying *Notes to the Financial Statements*.

Statements of Revenues, Expenses, and Changes in Net Position

Internal Service Funds - For Year Ending June 30, 2013

	Life & LTD	Deferred Compensation	Total
Operating revenues			
Premium receipts	\$28,961,637	\$ 0	\$28,961,637
Miscellaneous income	480,120	0	480,120
Total operating revenues	29,441,757	0	29,441,757
Operating expenses			
Premium disbursements	28,930,950	0	28,930,950
Premium refunds	30,687	0	30,687
Administrative expenses	472,792	332,665	805,457
Total operating expenses	29,434,429	332,665	29,767,094
Operating revenues over (under) operating expenses	7,328	(332,665)	(325,337)
Non-operating revenues			
Investment income	12,075	0	12,075
Net revenues over (under) expenses	19,403	(332,665)	(313,262)
Net position (deficit) July 1, 2012	(59,092)	849,754	790,662
Net position (deficit) June 30, 2013	\$ (39,689)	\$ 517,089	\$ 477,400

See accompanying *Notes to the Financial Statements*.

BASIC FINANCIAL STATEMENTS

Statements of Cash Flows

Internal Service Funds - Year Ended June 30, 2013

	Life & LTD	Deferred Compensation	Total
Cash flows from operating activities			
Cash received from employer and members	\$ 29,430,414	\$ 0	\$ 29,430,414
Payments to outside carriers	(28,637,355)	0	(28,637,355)
Refunds of premiums to members	(30,687)	0	(30,687)
Cash payments to employees for services	(190,576)	(233,052)	(423,628)
Cash payments to other suppliers of goods and services	(863,461)	235,348	(628,113)
Net cash provided (used) by operating activities	(291,665)	2,296	(289,369)
Cash flows from noncapital financing activities			
Implicit funding of checks outstanding net of deposits	8,211	0	8,211
Implicit repayment of prior years checks outstanding net of deposits	(2,626)	0	(2,626)
Net cash provided by noncapital financing activities	5,585	0	5,585
Cash flows from investing activities			
Purchase of investment securities	(892,024,960)	0	(892,024,960)
Proceeds from sale and maturities of investment securities	892,298,965	0	892,298,965
Cash received from investment income	12,075	0	12,075
Purchase of fixed assets	0	(2,296)	(2,296)
Net cash provided (used) by investing activities	286,080	(2,296)	283,784
Net increase (decrease) in cash	0	0	0
Cash balances June 30, 2012	0	0	0
Cash balances June 30, 2013	\$ 0	\$ 0	\$ 0
Reconciliation of operating revenues under operating expenses to net cash provided by operating activities			
Operating revenues over (under) operating expenses	\$ 7,328	\$(332,665)	\$ (325,337)
<i>Adjustments to reconcile operating revenues over (under) operating expenses to net cash provided (used) by operating activities</i>			
Depreciation expense	0	3,705	\$3,705
Change in position and liabilities:			
(Increase) decrease in operational accounts receivable	(342,719)	331,256	(11,463)
Increase in operational accounts payable	43,726	0	43,726
Total adjustments	(298,993)	334,961	35,968
Net cash provided (used) by operating activities	\$ (291,665)	\$ 2,296	\$ (289,369)

See accompanying *Notes to the Financial Statements*.

NOTES TO THE FINANCIAL STATEMENTS

Year Ended June 30, 2013

(1) PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION

Missouri State Employees' Plan (MSEP)

The MSEP is a single-employer, public employee retirement plan with two benefit structures known as the MSEP (closed plan) and MSEP 2000, which are administered by the Missouri State Employees' Retirement System (MOSERS) in accordance with Sections 104.010 and 104.312 to 104.1215 of the Revised Statutes of Missouri (RSMo). As established under Section 104.320, RSMo, MOSERS is a body corporate and an instrumentality of the state. In the system are vested the powers and duties specified in Sections 104.010 and 104.312 to 104.1215, RSMo and such other powers as may be necessary or proper to enable it, its officers, employees, and agents to carry out fully and effectively all the purposes of Sections 104.010 and 104.312 to 104.1215, RSMo.

Responsibility for the operation and administration of the system is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the MSEP is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

The board intends to follow a financing pattern which computes and requires contribution amounts which, expressed as a percent of active member payroll, will remain approximately level from year-to-year and from one generation of citizens to the next generation.

In July 2012, the board voted to reduce the nominal investment return assumption from 8.5% to 8% and to adopt assumptions for wage inflation and price inflation of 3% and 2.5%, respectively. See the *Actuarial Section* for detail in change in assumptions.

Complete recognition of the year-to-year swings in the market value of system assets would produce contribution rate changes that would run counter to the "approximately level" goal. To address that issue, a common actuarial practice referred to as asset smoothing is used. At the June 2013 meeting, the board approved a change related to the smoothing method used in determining the actuarial value of assets. This change requires investment gains or losses, relative to what would have been earned at the assumed rate on the actuarial value of assets, to be added to any previously unrecognized gains or losses and one-third of that total amount to be recognized beginning in FY14, with two-thirds deferred for future recognition. In no event may the actuarial value of assets as of the valuation date be more than 125% or less than 80% of the market value of assets on that date.

At any point in time, the ratio of actuarial to market value of assets will be more or less than the market value but, if the smoothing method is prudent and properly constructed, those values will converge over time. As of June 30, 2013, and 2012, the ratio of actuarial to market value of assets was 101% and 104%, respectively for the MSEP.

Generally, all full-time state employees hired before July 2000, who were not covered under another state-sponsored retirement plan, are eligible for membership in the MSEP (closed plan). Full-time state employees hired after July 2000, and before January 2011, are eligible for membership in the MSEP 2000. Employees hired for the first time on or after January 2011 are eligible for membership in the MSEP 2011 tier of the MSEP 2000. MOSERS participates as an employer in the MSEP and MSEP 2000. The MSEP provides retirement, survivor, and disability benefits.

As of the June 30, 2013 valuation, membership* in the MSEP consisted of the following:

Retirees and beneficiaries currently receiving benefits		39,139
Terminated employees entitled to, but not yet receiving benefits		18,550
Active		
Vested	35,501	
Nonvested	15,332	50,833
Total membership		<u>108,522</u>

* Excludes 209 members on leave of absence and 1,077 members on long-term disability.

MSEP (closed plan)

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP (closed plan), general employees may retire with full benefits upon the earliest of attaining:

- Age 65 and active with 4 years of service;
- Age 65 with 5 years of service;
- Age 60 with 15 years of service; or
- Age 48 with age and service equaling 80 or more - “Rule of 80.”

General employees may retire early at age 55 with at least 10 years of service with reduced benefits.

The base benefit in the general employee plan is equal to 1.6% multiplied by the final average pay multiplied by years of credited service.

For members hired prior to August 28, 1997, cost-of-living adjustments (COLAs) are provided annually based on 80% of the percentage increase in the average consumer price index (CPI) from one year to the next, with a minimum rate of 4% and maximum rate of 5% until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated. For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment. To qualify, a member must have terminated with at least 5, but less than 10 years of service, be less than age 60, and have a benefit present value of less than \$10,000.

Contributions are determined through annual actuarial valuations. Administration of the MSEP is financed through contributions to this plan from the state of Missouri and investment earnings.

MSEP 2000

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP 2000, general employees may retire with full benefits upon the earliest of attaining:

- Age 62 with 5 years of service; or
- Age 48 with age and service equaling 80 or more - “Rule of 80.”

General employees may retire early at age 57 with at least 5 years of service with reduced benefits.

The base benefit in the general employee plan is equal to 1.7% multiplied by final average pay multiplied by years of credited service.

For those retiring under “Rule of 80,” an additional temporary benefit equivalent to 0.8% multiplied by final average pay multiplied by years of credited service is payable until age 62.

COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Contributions are determined through annual actuarial valuations. Administration of the MSEP 2000 is financed through contributions to this plan from the state of Missouri and investment earnings.

The state of Missouri is required to make all contributions to the MSEP. Prior to September 1, 1972, contributions by members were required. Accumulated employee contributions made prior to that time, plus interest through August 28, 1997, are refundable to the member or designated beneficiaries upon request.

For a more detailed summary of benefits for general employees and a description of benefits available to legislators and elected officials under the MSEP (closed plan) and the MSEP 2000, refer to the *Summary of Plan Provisions* contained in the *Actuarial Section* of this report.

MSEP 2011 Tier

On July 19, 2010, an additional tier defined benefit plan was signed into law for members of the Missouri State Employees' Retirement System (MOSERS) and the MoDOT and Patrol Employees' Retirement System (MPERS). This tier (MSEP 2011) includes all new employees first hired on or after January 1, 2011.

Under the MSEP 2011, general employees may retire with full benefits upon the earliest of attaining:

- Age 67 with 10 years of service; or
- Age 55 with age and service equaling 90 or more - "Rule of 90."

General employees may retire early at age 62 with at least 10 years of service with reduced benefits.

The base benefit in the general employee plan is equal to 1.7% multiplied by final average pay multiplied by years of credited service.

For those retiring under "Rule of 90," an additional temporary benefit equivalent to 0.8% multiplied by final average pay multiplied by years of credited service is payable until age 62.

COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Member contributions are 4% of pay. Employer contributions are determined through annual actuarial valuations. Administration of the MSEP 2000 is financed through contributions to this plan from the member, state of Missouri, and investment earnings.

For a more detailed summary of benefits for general employees and a description of benefits available to legislators and elected officials under the MSEP 2011 tier, refer to the *Summary of Plan Provisions* in the *Actuarial Section* of this report.

The MSEP 2011 does not impact employees employed by the state prior to January 1, 2011.

Service Transfer Contributions

On July 8, 2011, HB 282 was enacted which allowed MOSERS and MPERS to transfer funds between the two systems in connection with service credit transfers occurring on or after September 1, 2011. The legislation also included provisions that made any full-time employee of the Missouri Development Finance Board (MDFB) who is employed on or after September 1, 2011, a state employee and member of MOSERS. Provisions further allowed MDFB employees to purchase credited service toward retirement based on their employment with MDFB prior to September 1, 2011.

Judicial Plan

The Judicial Plan is a single-employer, public employee retirement plan administered in accordance with Sections 476.445 to 476.690, RSMo. Responsibility for the operation and administration of the Judicial Plan is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Judicial Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

Judges and commissioners of the supreme court or the court of appeals, judges of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, justices of the peace, or commissioners or deputy commissioners of the circuit court appointed after February 29, 1972, commissioners of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo, commissioners of the drug court pursuant to Section 478.466, RSMo, or commissioners of the family court are eligible for membership in the Judicial Plan. The Judicial Plan provides retirement, survivor, and disability benefits. Members are immediately eligible for benefits.

As of the June 30, 2013 valuation, membership* in the Judicial Plan consisted of the following:

Retirees and beneficiaries currently receiving benefits		497
Terminated employees entitled to, but not yet receiving benefits		31
Active		
Vested	400	
Nonvested	0	400
Total membership		<u>928</u>

* Excludes 1 member on leave of absence and 1 member on long-term disability.

Under the Judicial Plan, members may retire with full benefits upon the earliest of attaining:

- Age 62 with 12 years of service;
- Age 60 with 15 years of service; or
- Age 55 with 20 years of service.

Employees may retire early at age 62 with less than 12 years of service or age 60 with less than 15 years of service with a reduced benefit that is based upon years of service relative to 12 or 15 years.

In the Judicial Plan, the base benefit for members with 12 or more years of service is equivalent to 50% of compensation on the highest court served.

For members hired prior to August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, with a minimum rate of 4% and maximum rate of 5% until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated. For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment. To qualify, a member must have terminated with at least 5, but less than 10 years of service, be less than age 60, and have a benefit present value of less than \$10,000.

Funding of the Judicial Plan on an actuarial basis began on July 1, 1998. Contributions are determined through annual actuarial valuations. The state of Missouri is required to make all contributions to the Judicial Plan. Administration of the Judicial Plan is financed through contributions to this plan from the state of Missouri and investment earnings.

Judicial 2011 Tier

On July 19, 2010, an additional tier defined benefit plan was signed into law for members of the Judicial Plan. This tier (Judicial Plan 2011) includes all new judicial members first hired on or after January 1, 2011.

Under the Judicial Plan 2011, members may retire with full benefits upon the earliest of attaining:

- Age 67 with 12 years of service; or
- Age 62 with 20 years of service; or

Judicial members may retire early at age 67 with less than 12 years of service with reduced benefits; or age 62 with less than 20 years of service with a reduced benefit based on years of service.

In July 2012, the board voted to reduce the nominal investment return assumption from 8.5% to 8% and to adopt assumptions for wage inflation and price inflation of 3% and 2.5%, respectively. See the *Actuarial Section* for detail in change in assumptions.

In the Judicial Plan, the base benefit for members with 12 or more years of service is equivalent to 50% of compensation on the highest court served. For a more detailed summary of benefits for members of the Judicial Plan, refer to the *Summary of Plan Provisions* in the *Actuarial Section* of this report.

Schedule of Funded Status

	Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-a)/c)
MSEP	06/30/2013	\$8,096,436,929	\$11,134,637,484	\$3,038,200,555	72.7%	\$1,880,212,950	161.6%
Judges	06/30/2013	111,140,339	435,378,358	324,238,019	25.5	48,697,726	665.8

	MSEP	Judicial Plan
Valuation date	6/30/2013	6/30/2013
Actuarial cost method	Entry age normal	Entry age normal
Amortization method	Level percent	Level percent
Remaining amortization period	30 years open	30 years open
Asset valuation method	3-year rolling smoothed +25/-20% market corridor	3-year rolling smoothed +25/-20% market corridor
<i>Actuarial assumptions:</i>		
Investment rate of return	8.00%	8.00%
Projected salary increases	3.0-6.9%	3.0-5.2%
Rate of payroll growth	3.0%	3.0%
COLAs	4%*	4%**
Price inflation	2.50%	2.50%

* On a compound basis, 4% for the first 12 years, 3.06% for the 13th year, and 2.0% per year thereafter.

** On a compound basis, 4% for the first 12 years, 3.06% for the 13th year, and 2.0% per year thereafter.

Multi-year trend information related to the table above demonstrates whether the actuarial value of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits can be found in the required supplementary information following the *Notes to the Financial Statements*.

Change in Demographic Assumptions

In June 2012, based on the experience study provided by the retained actuary, the board adopted strengthened mortality tables and revised rates of withdrawal and retirement to better reflect recent experience for both MSEP and Judges plans. Other minor changes in demographic assumptions were also adopted.

Missouri State Insured Defined Benefit Insurance Plan

The Missouri State Insured Defined Benefit Insurance Plan is accounted for as an internal service fund of the state of Missouri and is administered by MOSERS. It provides basic life insurance in an amount equal to one times annual salary while actively employed (with a \$15,000 minimum) to eligible members of the MSEP, MSEP 2000 (except employees of the Missouri Department of Conservation and certain state colleges and universities), MSEP 2011, Judicial Plan, and certain members of the Public School Retirement System.

The plan also provides duty-related death benefits, optional life insurance for active employees and retirees who are eligible for basic coverage, and a long-term disability plan for certain eligible members. For a more detailed description of insurance benefits, refer to the *Summary of Plan Provisions - Life Insurance Plans* in the *Actuarial Section* of this report.

Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Missouri State Insured Defined Benefit Insurance Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as an internal service fund. Administration of the Missouri State Insured Defined Benefit Insurance Plan is financed through contributions to this plan from the state of Missouri.

State of Missouri's Deferred Compensation Plan

The State of Missouri's Deferred Compensation Plan is accounted for as an internal service fund and is administered by MOSERS.

The record keeping of individual accounts and the management of investment options are handled by external providers and paid from charges to the participants and investment option reimbursement arrangements. Participants in the plan manage individual accounts by choosing investment options from the available fund lineup. MOSERS' role is to oversee the plan, choose external providers and investment options, and develop communication to plan participants. The State of Missouri Deferred Compensation Plan receives reimbursements from the plan's investment option managers which are used to cover plan administration costs and a portion of participant fees. In FY13, a total of \$2,379,705 was collected from a combination of \$1,726,435 in investment option reimbursements and \$653,270 in participant fees.

Effective July 1, 2012, new permanent full-time and part-time employees are automatically enrolled at 1% of pay into the State of Missouri Deferred Compensation Plan.

A new investment option was added to the plan's core line-up in FY13. This addition is the MOSERS Investment Portfolio (MIP) fund option and it offers participants the ability to purchase units of MOSERS investments. As a result, participants own units of MOSERS investments but not specific assets. As of June 30, 2013, participants invested \$2,015,286 in the MIP.

Audited financial statements for the State of Missouri Deferred Compensation Plan can be viewed on MOSERS' website at www.mosers.org.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND PLAN ASSET MATTERS

Basis of Accounting

The financial statements of the MSEP, the Judicial Plan, the Missouri State Insured Defined Benefit Insurance Plan and State of Missouri's Deferred Compensation Plan were prepared using the accrual basis of accounting. The accompanying financial statements are prepared in accordance with accounting principles generally accepted in the United States of America that apply to governmental accounting for fiduciary funds including the Governmental Accounting Standards Board (GASB) Statements numbers 25, 28, 34, 37, 40, 43, 50, 53, and 63.

Contributions are recognized as revenues when due, pursuant to statutory requirements. Benefits and refunds are recognized when due and payable and expenses are recorded when the corresponding liabilities are incurred, regardless of when contributions are received or payment is made. The direct method of reporting cash flows is used.

Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the reported amounts of net assets held in trust for pension benefits at June 30, 2013. Actual results could differ from those estimates.

Method Used to Value Investments

Section 104.440, RSMo allows the board of trustees to invest the trust fund assets in accordance with the prudent person rule. Investments of the pension trust funds and the internal service funds are reported on the basis of fair market value. During FY13, MOSERS began unitizing investments for the purpose of allowing participants in the State of Missouri Deferred Compensation Plan the option to invest in units of MOSERS investment portfolio (MIP). For financial reporting purposes, investments throughout this CAFR are reported in whole and include .03% or \$2,015,286 of the units invested in the MIP by Deferred Compensation participants. The schedule on page 43 provides a summary of the fair values of the investments as reported on the *Statements of Fiduciary Net Position* of the pension trust funds and balance sheet of the internal service funds. Fair values for the equity real estate investments are based on appraisals. Fair values of the limited partnership investments are based on valuations of the underlying companies of the limited partnerships as reported by the general partner. Certain limited partnerships reflect values and related performance on a quarter lag basis due to the nature of those investments and the time it takes to value them. Fair value of the commingled funds is determined based on the underlying asset values. The remaining assets are primarily valued by the system's master custodian, BNY Mellon using the last trade price information supplied by various pricing data vendors.

Cash

Custodial credit risk for cash deposits and investments is the risk that, in the event of a bank failure, the system and plan deposits may not be returned to them. The board adopted the following policy on June 18, 2009:

The executive director shall require that banks managing demand deposit accounts for any retirement plan associated with MOSERS (MOSERS' defined benefit plan and the deferred compensation plan/state incentive compensation plan) to hold, at minimum, collateral security in either MOSERS' name or the state of Missouri Deferred Compensation Plan and in an amount equal to or more than the amount on deposit that exceeds the Federal Deposit Insurance Corporation (FDIC) insured amount. The types of collateral security shall be included on a list maintained by the State Treasurer's office in accordance with Section 30.270 RSMo, but in no case may a bank pledge collateral that does not specifically allow MOSERS to release the collateral or pledge collateral that represents securities of the pledging banks.

Cash balances represent both demand deposit accounts held at the bank and investment cash on deposit with the investment custodian. To maximize investment income, the float caused by outstanding checks is invested in an internally managed short-term investment account, thus causing a possible negative book balance. Negative book balances are reflected in the liabilities section of the balance sheet of the internal service fund and included in the cash and short-term investments on the *Statements of Fiduciary Net Position* of the pension trust funds.

The table below is a schedule of the aggregate book and bank balances of all cash accounts.

Under the repurchase agreement the bank does not have a right to substitute other appropriate securities. Central Trust Bank pledged the following securities to MOSERS on June 30, 2013, as collateral for overnight repurchase agreements:

- | | | |
|--|--|---|
| • \$6,000,000 Federal Home Loan Mortgage Corporation | | maturity date - 11/27/2015 / fair value - \$5,983,260 |
| • \$3,750,000 Federal Farm Credit Bank | | maturity date - 04/25/2016 / fair value - \$3,716,400 |
| • \$6,000,000 Federal Home Loan Mortgage Corporation | | maturity date - 06/06/2016 / fair value - \$5,955,960 |

Aggregate Book and Bank Balances

	Cash Balances	
	Book	Bank/Investment Custodian
Pension Trust Funds - investment custodian	\$10,289,755	\$10,289,755
Pension Trust Funds - demand deposits	(10,515,710)	30,754
Internal Service Fund - insurance plan demand deposits	(8,211)	104

Investments

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to MOSERS. As of June 30, 2013, MOSERS' fixed income assets that are not government guaranteed represented 57% of the fixed income portfolio. In preparing this report, credit risk associated with all fixed income holdings including collateral for repurchase agreements and securities lending collateral has been included. The tables below summarize MOSERS' fixed income portfolio exposure levels and credit qualities.

As a matter of practice, there are no overarching limitations for credit risk exposures within the overall fixed income portfolio. Each individual portfolio within fixed income is managed in accordance with operational guidelines that are specific as to permissible credit quality ranges, exposure levels within individual quality tiers, and average credit quality. MOSERS is notified by the investment manager when an investment with a quality rating of CC or lower is purchased and in those circumstances of downgrades subsequent to purchase, in which case the investment manager has been given permission to hold the security, usually due to mitigating circumstances such as a very short maturity or a much higher rating from one of the other ratings agencies but may include situations in which the investment manager believes that worst case recovery values exceed market pricing.

Credit risk for derivative instruments held by the system results from counterparty risk assumed by MOSERS. This is essentially the risk that the counterparty to a MOSERS transaction will be unable to meet its obligation. Information regarding MOSERS' credit risk related to derivatives can be viewed in the derivatives disclosures on pages 40-41 of these notes.

Policies related to credit risk pertaining to MOSERS' securities lending program are found under the securities lending disclosures found on page 42 of these notes.

Average Credit Quality and Exposure Levels of Nongovernment Guaranteed Securities

Fixed Income Security Type	Market Value June 30, 2013	Percent of all Fixed Income Assets	Weighted Average Credit Quality	Ratings Dispersion Requiring Further Disclosure
Collateralized mortgage obligations	\$ 31,564,474	1.3%	CCC-	See table below
Non-U.S. sovereign	76,467,087	3.3	BBB+	See table below
Asset backed securities	12,223,122	0.5	AA-	See table below
Corporate bonds	97,858,369	4.2	AA+	See table below
Bank loans	266,033	0.0	B+	See table below
Bank deposits	400,090,001	17.0	FDIC Insured	None
Repurchase agreements	625,000,000	26.6	Not Rated	None
Pooled investments	95,433,280	4.1	AAA	None
Total nongov't guaranteed securities	<u>\$1,338,902,366</u>	<u>57.0%</u>		
Total fixed income securities	<u>\$2,347,252,823</u>			

Ratings Dispersion Detail Market Value

Credit Rating Level	Collateralized Mortgage Obligations	Non-U.S. Sovereign	Asset Backed Securities	Corporate Bonds	Bank Loans
Agency	\$ 1,352,070		\$ 8,928,064	\$68,199,430	
AAA		\$ 1,441,189			
AA				10,368,038	
A		14,314,012	121,523	15,451,891	
BBB		56,031,615		3,839,010	
BB	238,519	4,680,271	688,278		
B	4,045,636		833,880		\$265,926
CCC	6,856,239		1,648,395		
CC	13,864,303				
C	694,507				
D	4,513,200				
Not Rated			2,982		107
	<u>\$31,564,474</u>	<u>\$76,467,087</u>	<u>\$12,223,122</u>	<u>\$97,858,369</u>	<u>\$266,033</u>

Financial Section

Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an investment in a single-issuer. There is no single-issuer exposure within MOSERS' portfolio that comprises 5% or more of the overall portfolio. Therefore, there is no concentration of credit risk.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed by using the effective duration or option adjusted methodology. It is widely used in the management of fixed income portfolios by quantifying the risk of interest rate changes. This methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending upon the degree of change in rates and the slope of the yield curve. Within the investment policy, operational guidelines specify the degree of interest rate risk taken within the system's fixed income portfolios, with the exception of some portfolios in which credit risk is the predominant factor and is also controlled by specific guidelines. It is believed that the reporting of effective duration found in the tables below quantifies to the fullest extent possible the interest rate risk of the system's fixed income assets.

MOSERS invests in mortgage-backed securities, which are reported at fair value in the *Statement of Fiduciary Net Position* of the pension trust funds. Such securities have embedded within them the risk of being called, whereby the issuer has the option to keep the debt outstanding in rising interest rate environments or repay the debt in declining interest rate environments, a factor that advantages the issuer. MOSERS invests in these securities to diversify the portfolio with high quality and liquid investments, which capture a significant yield premium that is intended to compensate for the call risk. This risk is incorporated within the effective duration calculation used in the interest rate risk analysis.

Effective Duration of Fixed Income Assets by Security Type

Fixed Income Security Type	Market Value June 30, 2013	Percent of all Fixed Income Assets	Weighted Average Effective Duration (Years)	Interest Rate Risk Requiring Further Disclosure
U.S. treasuries	\$ 596,619,136	25.4%	6.3	See below
Collateralized mortgage obligations	31,564,474	1.3	0.2	None
Non-U.S. sovereign	76,467,087	3.3	5.1	None
Asset backed securities	12,223,122	0.5	0.0	None
Corporate bonds	97,858,369	4.2	0.3	None
Bank loans	266,033	0.0	0.0	None
Bank deposits	400,090,001	17.0	0.0	None
Repurchase agreements	1,036,731,321	44.2	0.0	None
Pooled investments	95,433,280	4.1	0.0	None
	<u>\$2,347,252,823</u>	<u>100.0%</u>	<u>1.8</u>	

Effective Duration Analysis of U.S. Treasuries

Maturity	Market Value June 30, 2013	Average Effective Duration of the Security Type	Contribution to Effective Duration
Less than 1 year to maturity	\$ 81,091,841	0.8	0.1
1- to 10-year maturities	426,910,635	5.9	4.2
Long coupon treasuries	88,616,660	13.5	2.0
	<u>\$ 596,619,136</u>		<u>6.3</u>

Repurchase Agreements by Collateral Type

Collateral Type	Market Value of Collateral June 30, 2013	Market Value of Repurchase Agreement June 30, 2013	Percent Over Collateralized
U.S. treasuries	\$ 419,958,427	\$ 411,721,964	2.0%
Money market instruments	64,741,837	60,000,000	7.9
Investment grade corporates	26,251,330	25,000,000	5.0
Common stock	583,450,000	540,000,000	8.0
	<u>\$1,094,401,594</u>	<u>\$1,036,721,964</u>	<u>5.6%</u>

Repurchase Agreements

Repurchase agreements (repos) are a secured loan with the collateral held at a custodian bank. Typical collateral for repos include treasury securities, agency securities, mortgage-backed securities, investment grade corporate bonds, commercial paper, and common stock. Repos are typically done for an overnight term, however, they can be done for a longer term. MOSERS enters into repo transactions to earn interest on short-term funds.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. MOSERS' currency risk exposures, or exchange rate risk, primarily reside within MOSERS' international equity investment holdings. MOSERS' implementation policy is to allow external managers to decide what action to take regarding their respective portfolio's foreign currency exposures using currency forward contracts. MOSERS' exposure to foreign currency risk in U.S. dollars as of June 30, 2013, is highlighted in the table below:

Currency Exposures by Asset Class					
Currency	Cash & Cash Equivalents	Equities	Fixed Income	Alternatives	Total
Brazilian Real	\$ 66,098	\$ 26,406,406	\$ 9,864,507		\$ 36,337,011
Canadian Dollar	12,407				12,407
Chilean Peso	371	3,021,966	174,461		3,196,798
Czech Koruna	101,131	2,133,953			2,235,084
Danish Krone		4,688,699			4,688,699
Egyptian Pound	1,705	1,333,551			1,335,256
Euro	5,147,590	198,154,113		\$93,542,409	296,844,112
Hong Kong Dollar	265,016	78,164,892			78,429,908
Hungarian Forint		529,547	3,345,589		3,875,136
Indian Rupee	121,814	15,378,524			15,500,338
Indonesian Rupiah	45,675	12,998,708	6,358,826		19,403,209
Israeli Shekel		12			12
Japanese Yen	2,481,826	269,497,980			271,979,806
Malaysian Ringgit	36,722	8,950,196	7,127,012		16,113,930
Mexican Peso	37,059	14,023,799	9,307,121		23,367,979
Peruvian New Sol	95		106,427		106,522
Philippine Peso	25,319	3,321,857			3,347,176
Polish Zloty	3,902	4,729,629	6,880,717		11,614,248
Russian Ruble	75,607	1,475,453	7,405,568		8,956,628
Singapore Dollar	208	24,351,721			24,351,929
South African Rand	78,558	14,494,471	7,997,427		22,570,456
South Korean Won	116,701	49,485,393	1,969,450		51,571,544
Sri Lankan Rupee	20,875	22,893			43,768
Swedish Krona		5,792,578			5,792,578
Swiss Franc		102,383,906			102,383,906
Taiwan New Dollar	228,163	36,027,867			36,256,030
Thai Baht	41,212	18,919,108	4,819,302		23,779,622
Turkish Lira	1,311	5,539,055	7,813,650		13,354,016
British Pound Sterling	58	106,279,221			106,279,279
Chinese Renminbi	536,179	1,157,605			1,693,784
Colombian Peso		1,594,782	3,718,483		5,313,265
Venezuelan Bolivar	36,601				36,601
Moroccan Dirham	90	159,475			159,565
Ukrainian Hryvnia		57			57
Norwegian Krone		7,452,852			7,452,852
Nigerian Naira	869,021	49,771	311,332		1,230,124
Romanian New Leu			113,888		113,888
Vietnamese Dong	9,857				9,857
	\$10,361,171	\$1,018,520,040	\$77,313,760	\$93,542,409	\$1,199,737,380

Derivatives

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indexes. They include futures contracts, swap contracts, options contracts, and forward foreign currency exchange. For accounting purposes, all derivative instruments are considered to be investments and not hedges. The tables below summarize the various contracts in the portfolio as of June 30, 2013.

While the board has no formal policy specific to derivatives, the MOSERS investment implementation program, through its external managers, holds investments in futures contracts, swap contracts, and forward foreign currency exchange. MOSERS enters into these certain derivative instruments primarily to enhance the performance and reduce the volatility of its portfolio. It enters swaps and futures contracts to gain exposure to certain markets and to manage interest rate risk and enters into forward foreign exchange contracts primarily to hedge foreign currency exposure.

The notional values associated with these derivative instruments are generally not recorded on the financial statements; however, the amounts for the exposure on these instruments are recorded in the *Statement of Fiduciary Net Position* and the total changes in fair value for the year are included as investment income in the *Statement of Changes in Fiduciary Net Position*. For the year ending June 30, 2013, the change in fair value in the swap contracts resulted in \$85.7 million of investment income. The change in fair value in the future contracts resulted in \$49.9 million of investment income and the change in fair value of the foreign exchange contracts resulted in a loss of \$6.1 million of investment income. MOSERS does not anticipate additional significant market risk from the swap arrangements.

MOSERS could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. MOSERS' investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. MOSERS anticipates that the counterparties will be able to satisfy their obligations under the contracts. Investments in limited partnerships and commingled funds may include derivatives that are not shown in the derivative totals.

Futures Contracts

Futures Contract	2013 Expiration Date	Long/Short	Notional/Fair Value	Exposure
U.S. long treasury bond	September	Long	\$ 23,772,656	\$ 0
U.S. 10-year treasury notes	September	Long	156,178,125	(107,891)
U.S. 2-year treasury notes	September	Long	119,240,000	(19,141)
U.S. Ultra Bond	September	Long	727,134,500	5,904,688
S&P 500 eMini index	September	Long	734,878,350	(3,531,065)
Gold 100 oz	August	Long	38,791,290	383,570
Total			\$1,799,994,921	\$ 2,630,161

Foreign Currency Forward Contracts at June 30, 2013

Currency	Net Notional Long/(Short)	Exposure
Brazilian Real	\$ 93,398	\$ (662)
Columbian Peso	(246,089)	742
Euro	(69,625,677)	(1,671,453)
Hungarian Forint	0	6,849
Japanese Yen	0	1,857,890
Peruvian Nuevo Sol	381,021	1,021
Romanian Leu	303,259	(5,493)
Thai Baht	(41,670)	(174)
Turkish Lira	3,854	1
U.S. Dollar	69,320,625	0
Foreign currency forward contract asset (liability)	\$ 188,721	\$ 188,721

Swap Contracts

MOSERS Receives	Maturity Date	Notional Value	Exposure	Index Counterparty	Counterparty Credit Rating*
S&P 500 Financials	10/2013	\$ 59,483,142	\$ 2,524,577	Goldman Sachs	Aa3/A-
S&P 500 Consumer Discretionary Total Return	1/2014	(70,999,930)	(2,595,503)	Goldman Sachs	Aa3/A-
S&P 100 Technology Total Return	10/2013	80,828,320	(29,077)	JP Morgan Chase	Aa3/A+
S&P 100 Consumer Staples Total Return	10/2013	85,275,165	(3,180,554)	JP Morgan Chase	Aa3/A+
S&P 100 Health Care Total Return	10/2013	92,148,116	(322,934)	JP Morgan Chase	Aa3/A+
S&P 100 Energy Total Return	10/2013	104,201,910	164,566	JP Morgan Chase	Aa3/A+
Dow Jones U.S. Select REIT Total Return	8/2013	0	(2,050,015)	Goldman Sachs	Aa3/A-
MSCI EAFE Total Return	9/2013	76,634,904	140,109	Deutsche Bank	A2/A+
MSCI EAFE Total Return	9/2013	(76,634,904)	4,789,627	Deutsche Bank	A2/A+
MSCI EAFE ex-Japan Total Return	10/2013	16,548,132	(318,761)	Deutsche Bank	A2/A+
MSCI EAFE ex-Japan Total Return	12/2013	92,753,878	(4,947,569)	Goldman Sachs	A2/A+
MSCI EAFE ex-Japan Total Return	8/2013	66,857,905	(6,845,186)	Deutsche Bank	A2/A+
MSCI EAFE ex-Japan Total Return	10/2013	78,897,821	(1,519,781)	Deutsche Bank	A2/A+
Barclays 1-10 Yr. TIPS Total Return	11/2013	177,194,964	(5,038,682)	Goldman Sachs	Aa3/A-
Barclays 1-10 Yr. TIPS Total Return	8/2013	174,766,876	(4,958,458)	Barclays	A2/A+
Barclays 1-10 Yr. TIPS Total Return	8/2013	190,784,979	(5,402,242)	Goldman Sachs	Aa3/A-
Barclays 1-10 Yr. TIPS Total Return	3/2014	188,945,209	(11,193,111)	Goldman Sachs	Aa3/A-
Barclays 1-10 Yr. TIPS Total Return	4/2014	186,647,832	(11,037,695)	Goldman Sachs	Aa3/A-
Barclays 1-10 Yr. TIPS Total Return	11/2013	266,412,674	(7,541,575)	Goldman Sachs	Aa3/A-
Barclays 1-10 Yr. TIPS Total Return	9/2013	178,000,000	0	Goldman Sachs	Aa3/A-
Deutsche Bank Intermediate TIPS Total Return	7/2013	75,039,042	(2,154,599)	Goldman Sachs	Aa3/A-
Barclays 10+ Yr. TIPS Total Return	1/2014	123,900,000	0	Goldman Sachs	Aa3/A-
S&P GSCI Total Return	1/2014	51,068,694	95,307	JP Morgan Chase	Aa3/A+
S&P GSCI Total Return	8/2013	131,124,025	290,842	JP Morgan Chase	Aa3/A+
S&P GSCI Total Return	11/2013	44,543,756	98,631	JP Morgan Chase	Aa3/A+
S&P GSCI Total Return	3/2014	25,436,308	56,711	JP Morgan Chase	Aa3/A+
S&P GSCI Total Return	6/2014	46,000,000	0	JP Morgan Chase	Aa3/A+
S&P GSCI Total Return	4/2014	51,345,555	114,674	Goldman Sachs	Aa3/A-
S&P GSCI Total Return	5/2014	70,765,238	158,045	Goldman Sachs	Aa3/A-
S&P GSCI Total Return	1/2014	105,155,669	251,209	JP Morgan Chase	Aa3/A+
CDX.NA.HY	6/2017	15,840,000	1,058,789	Deutsche Bank	A2/A+
Three-Month LIBOR Quarterly	12/2014	(10,000,000)	(316,486)	Deutsche Bank	A2/A+
Three-Month LIBOR Quarterly	6/2014	(10,000,000)	(158,401)	Deutsche Bank	A2/A+
Total		<u>\$2,688,965,280</u>	<u>\$(59,867,542)</u>		

* Ratings obtained from Moody's/S&P.

Securities Lending Program

The board of trustees' investment policy permits the pension trust funds to participate in a securities lending program. Fixed income, international equity and domestic equity securities of the pension trust funds are loaned to participating brokers who provide collateral in the form of cash, U.S. Treasury or government agency securities, or letters of credit issued by approved banks. Collateral must be provided in the amount of 102% of market value for domestic loans and 105% of market value for international loans. MOSERS does not have the authority to pledge or sell collateral securities, without borrower default. Securities on loan at fiscal year end for cash collateral and on loan for noncash collateral are presented in the schedule on the following page. On June 30, 2013, MOSERS had no credit risk exposure to borrowers because the collateral amounts received exceeded amounts out on loan.

As of June 30, 2013, Deutsche Bank AG, New York branch, served as the agent for the fixed income, domestic equity and international equity securities lending programs. In this capacity, MOSERS reduces credit risk by allowing Deutsche Bank to lend these securities to a diverse group of dealers on behalf of MOSERS. Indemnification against dealer default is provided by Deutsche Bank AG, an "A-rated" bank. With each of MOSERS' securities lending programs, a majority of loans are open loans and can be terminated on demand by either MOSERS or the borrower. Net income from the three lending programs is split on a 90/10 basis between MOSERS and Deutsche Bank, respectively.

Daily monitoring of securities that are on loan ensures proper collateralization levels and mitigates counterparty risk. Cash collateral from all three programs is commingled and invested in a separately managed short-term investment account for MOSERS. This cash collateral account is managed by Deutsche Bank. On June 30, 2013, the cash collateral account had a market value of \$461,766,766 and a weighted average maturity of one day. For all of the securities lending operational services, the custodian is paid an annual fee, which is netted out against MOSERS' earnings in the securities lending programs managed by Deutsche Bank.

Limited Partnerships

Many of MOSERS' alternative investments are organized in the form of limited partnerships. In these partnerships, the manager is the general partner and the limited partners are the investors. Investments in limited partnerships are accounted for on the equity method of accounting, and their earnings or losses for the period are included in investment income using the equity method. As of June 30, 2013, MOSERS had contracts with over 98 limited partnerships across various types of alternative investments. These partnerships collectively represent 60% of the total fund. A schedule of limited partnerships follows on pages 44-45.

Investments as of June 30, 2013

	Pension Trust Funds		Internal Service Funds	
	Investments at Cost Value	Investments at Fair Value	Investments at Cost Value	Investments at Fair Value
Common stocks				
Out on loan	\$ 40,489,285	\$ 62,772,588		
Not on securities loan	277,426,912	314,942,074		
Total	317,916,197	377,714,662		
International equities				
Out on loan	7,390,818	12,347,195		
Not on securities loan	380,952,971	921,083,355		
Total	388,343,789	933,430,550		
Treasury bonds, notes and bills				
Out on loan	334,330,698	336,251,916		
Not on securities loan	262,834,032	257,505,714		
Total	597,164,730	593,757,630		
Corporate bonds				
Out on loan	36,373,929	35,458,071		
Not on securities loan	5,327,678	13,010,802		
Total	41,701,607	48,468,873		
Convertible bonds	439,637	654,456		
Government bonds and gov't mortgage backed securities	78,249,453	70,007,740		
International corporate bonds	28,845,542	4,997,840		
Repurchase agreements	10,411,397	10,411,397	\$3,258,256	\$3,258,256
Short-term investment funds	1,640,210,461	1,640,210,461		
Collateralized mortgage obligations	23,519,246	28,364,477		
Foreign currencies	7,824,591	7,862,572		
Limited partnerships	3,769,012,780	4,870,969,314		
Bank loans	555,750	98		
Total Investments				
Out on loan	418,584,730	446,829,770		
Not on securities loan	6,485,610,450	8,140,020,300	3,258,256	3,258,256
Total	\$6,904,195,180	\$8,586,850,070	\$3,258,256	\$3,258,256
Reconciliation to investments on Statements of Fiduciary Net Position				
Total from above		\$8,586,850,070		
Less short-term investments:				
Repurchase agreements		(10,411,397)		
Short-term investment funds		(1,192,337,766)		
Less invested securities lending collateral:				
Short-term investment funds		(447,872,695)		
Corporate bonds		(13,894,071)		
Investments on Statements of Fiduciary Net Position		\$6,922,334,141		

Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.

Limited Partnerships

Partnership Name	Style	Investments at Fair Value as of June 30, 2013
Actis Emerging Markets III	Emerging markets	\$ 48,185,974
Actis Global IV	Emerging markets	1,631,698
African Development Partners I, LLC	Emerging markets	41,443,495
Alinda Infrastructure Fund I, LP	Infrastructure	28,805,719
American Industrial Partners Capital Fund V, LP	Corporate buyout	6,334,705
AQR Absolute Return Institutional Fund, LP	Multi-strategy	60,000,017
AQR DELTA Sapphire Fund, LP	Multi-strategy	236,371,482
AQR Global Risk Premium Fund IV, LP	Beta balanced	345,437,345
Axiom Asia Private Capital Fund II, LP	Emerging markets	22,106,707
Axiom Asia Private Capital Fund III, LP	Emerging markets	1,745,258
Axxon Brazil Private Equity Fund II B, LP	Emerging markets	10,088,692
Bayview Opportunity Domestic, LP - high yield	Distressed real estate debt	23,864,482
Bayview Opportunity Domestic IIIb, LP - high yield	Distressed real estate debt	30,275,124
Blackstone Real Estate Partners IV	Active real estate	46,513,422
Blackstone Real Estate Partners V	Active real estate	115,310,825
Blackstone Real Estate Partners VI	Active real estate	94,063,665
Blackstone Real Estate Partners VII	Active real estate	41,995,681
Blackstone Topaz Fund, LP	Multi-strategy - fund-of-funds	404,946,189
Blakeney Onyx, LP	Emerging markets	103,799,715
Brevan Howard, LP	Global macro	89,858,072
Brevan Howard Emerging Markets Strategies Fund, LP	Global macro	70,074,904
Bridgepoint Europe III A, LP	Corporate buyout	16,105,616
Bridgepoint Europe IV B, LP	Corporate buyout	34,190,684
Bridgewater All Weather, LLC	Beta balanced	415,212,445
Bridgewater Associates - Diamond Ridge Fund, LLC	Global macro	77,413,908
Campbell Timber Fund II A, LP	Timberland	43,050,929
CarVal Investors CVI Global Value Fund A, LP - private debt	Distressed real estate debt	29,100,000
CarVal Investors CVI Global Value Fund A, LP - real estate	Distressed real estate debt	29,100,000
Catalyst Fund Limited Partnership III	Canadian distressed debt	31,507,312
Catalyst Fund Limited Partnership IV	Canadian distressed debt	6,394,000
Catterton Partners V, LP	Corporate buyout	21,133,418
Catterton Partners VI, LP	Corporate buyout	31,989,377
Catterton Partners VII, LP	Corporate buyout	3,849,974
Claren Road Credit Partners, LP	Long/short - credit	110,663,922
COMAC Global Macro Fund, LP	Global macro	46,053,008
CQS Feeder Fund, Ltd.	Long/short - credit	91,609,310
Davidson Kempner Institutional Partners, LP	Event driven	94,780,135
DDJ Capital Management - B IV Capital Partners, LP	Distressed debt	3,558,507
Diamondback Partners, LP	Long/short - equity	2,252,410
DRI Capital - LSRC	Intellectual property	23,230,456
DRI Capital - LSRC II	Intellectual property	3,779,577
EIG Energy Fund XIV, LP	Energy - mezzanine	32,212,397
EIG Energy Fund XV, LP	Energy - mezzanine	35,300,627
EIG Energy Co. - Investment I	Energy - infrastructure	6,301,427
Elliott International, Ltd.	Multi-strategy	94,824,067
Eminence Fund, Ltd.	Long/short - equity	99,430,554
Empyrean Capital Fund, LP	Event driven	52,257,880
Eton Park Fund, LP	Multi-strategy	47,510,993
Farallon Capital Institutional Partners, LP	Multi-strategy	5,553,286

Continued on page 45

Schedule of Investment Expenses continued from page 44

Limited Partnerships

Partnership Name	Style	Investments at Fair Value as of June 30, 2013
Fortress Mortgage Opportunities Fund Series 2	Distressed real estate debt	35,554,098
Garnet Sky Investors Company, Ltd.	Timberland	92,400,025
Gateway Energy & Resource Holdings, LLC	Energy - diversified	30,131,034
Glenview Institutional Partners, LP	Long/short - equity	59,947,519
Global Forest Partners GTI7 Institutional Investors Company, Ltd.	Timberland	85,446,465
HBK Offshore Fund, Ltd.	Multi-strategy	92,241,892
JLL Partners Fund V, LP	Corporate buyout	26,663,872
JLL Partners Fund VI, LP	Corporate buyout	18,539,665
King Street Capital, LP	Credit driven	37,006,454
King Street Capital, Ltd.	Credit driven	796,406
Linden Capital Partners II, LP	Corporate buyout	12,170,944
Linden Capital Partners Co - Invest, LP	Corporate buyout	4,411,765
Mast Credit Opportunities I, LP	Credit driven	74,433,174
Merit Energy Partners F-II, LP	Energy - oil & gas	8,173,459
MHR Institutional Partners II A, LP	Distressed debt	43,560,227
MHR Institutional Partners III, LP	Distressed debt	59,450,485
Millennium Technology Value Partners II, LP	Direct secondaries	11,455,063
Millennium Technology Value Partners Co-Investment	Direct secondaries	5,436,872
Moon Capital Global Equity Offshore Fund, Ltd.	Long/short - equity	840,770
Nephila Triton Fund, LP	Reinsurance	50,158,757
New Mountain Partners III, LP	Corporate buyout	43,865,041
Oaktree European Credit Opportunities Fund, LP	European loans	1,802,615
OCM Opportunities Fund IVB, LP	Distressed debt	225,253
OCM Opportunities Fund VIIb, LP	Distressed debt	28,932,415
OCM Opportunities Fund VIIIb, LP	Distressed debt	24,446,713
OCM Real Estate Opportunities Fund III, LP	Active real estate	8,616,060
OCM/GFI Power Opportunities Fund II, LP	Corporate buyout	2,397,403
OCM Power Opportunities Fund III, LP	Corporate buyout	10,090,578
PAAMCO - Newport Pioneer, LLC	Multi-strategy - fund-of-funds	4,286,036
Parish Capital Buyout Fund I, LP	Corporate buyout - fund-of-funds	14,139,295
Parish Capital Buyout Fund II, LP	Corporate buyout - fund-of-funds	18,756,749
Parish Opportunities Fund II, LP	Private equity co-investment	4,225,182
Perry Partners, LP	Multi-strategy	101,461
Pershing Square, LP	Long/short - equity	34,030,182
Pharo Macro Fund, Ltd.	Global macro	85,755,694
Resource Management Service - Wildwood Timberlands, LLC	Timberland	121,847,125
Silver Creek Special Opportunities Fund I, LP	Special situations - fund-of-funds	29,324,059
Silver Creek Special Opportunities Fund II, LP	Special situations - fund-of-funds	35,577,993
Silver Lake Partners II, LP	Corporate buyout	15,018,777
Silver Point Capital Fund, LP	Credit driven	2,023,882
SIRIS Partners II, LP	Corporate buyout	3,579,138
The Veritas Capital Fund III, LP	Corporate buyout	31,963,545
The Veritas Capital Fund IV, LP	Corporate buyout	29,436,327
TPG Airline Credit Opportunities II, LP	Special situations	28,396,340
TPG-Axon Partners (Offshore), Ltd.	Long/short - equity	27,519,505
Viking Global Equities III, Ltd.	Long/short - equity	117,047,892
Visium Balanced Fund, LP	Long/short - equity	85,928,970
Wellington Management - Spindrift Investors (Bermuda)	Long/short - equity	877,612
Other (each less than \$1M)	Miscellaneous	719,136
		<u>\$4,870,969,314</u>

Capital Assets

Office building, furniture, fixtures, and equipment costing \$1,000 or more when acquired are recorded at cost at the time of acquisition and are reported net of accumulated depreciation. Improvements, which increase the useful life of the property, are also capitalized. Maintenance and repairs are charged to expense as incurred. Depreciation is computed using the straight-line method over the estimated useful life of the related assets according to the following schedule:

- 5 years for furniture, fixtures, and equipment
- 40 years for building
- 5 years for software and licensing

Below is a schedule of the capital asset account balances for the pension trust funds and the internal service funds – Deferred Compensation Plan as of June 30, 2012, and June 30, 2013, and changes to those account balances during the year ended June 30, 2013.

Capital Asset Account - *Pension Trust Funds*

Capital Assets	Land	Building and Building Improvements	Furniture, Fixtures, and Equipment	Software and Licensing	Total Capital Assets
Balances June 30, 2012	\$267,286	\$3,670,514	\$1,664,763	\$124,625	\$5,727,188
Additions	0	468,567	209,840	136,606	815,013
Deletions	0	(78,905)	(173,988)	0	(252,893)
Balances June 30, 2013	267,286	4,060,176	1,700,615	261,231	6,289,308
Accumulated depreciation:					
Balances June 30, 2012	0	1,181,520	1,460,242	21,115	2,662,877
Depreciation expense	0	97,850	122,355	24,435	244,640
Deletions	0	0	(173,147)	0	(173,147)
Balances June 30, 2013	0	1,279,370	1,409,450	45,550	2,734,370
Net capital assets June 30, 2013	\$267,286	\$2,780,806	\$ 291,165	\$215,681	\$3,554,938

Capital Asset Account - *Internal Service Funds*

Capital Assets	Furniture, Fixtures, and Equipment	Software and Licensing	Total Capital Assets
Balances June 30, 2012	\$2,828	\$2,648	\$5,476
Additions	2,296	0	2,296
Deletions	0	0	0
Balances June 30, 2013	5,124	2,648	7,772
Accumulated depreciation:			
Balances June 30, 2012	112	338	450
Depreciation expense	3,175	530	3,705
Deletions	0	0	0
Balances June 30, 2013	3,287	868	4,155
Net capital assets June 30, 2013	\$1,837	\$1,780	\$3,617

(3) CONTRIBUTIONS AND RESERVES

The MSEP and the Judicial Plan are pension plans covering substantially all state of Missouri employees, administrative law judges and legal advisors in the Division of Workers' Compensation, and judges. The state of Missouri is obligated by state law to make required contributions to the plans. The required contributions are expressed as a level percentage of covered payroll and are actuarially determined using an individual entry-age normal actuarial cost method. The unfunded accrued liabilities are amortized over an open 30-year period for FY13. MSEP 2011 employees are required to contribute 4% of their pay. Costs of administering the plans are financed from the contributions to the pension trust funds and investment earnings.

Prospective Changes to Amortization Period

In June 2013, the board approved a change to the period over which unfunded actuarial accrued liabilities are amortized. The change reduced the amortization period from an open 30 years to a closed 30 years beginning July 1, 2014, and will continue to reduce by one year for each subsequent annual valuation, until the period reaches one year. The board intends to reexamine the amortization period in connection with the 2030 actuarial valuation to determine whether or not it should be reduced below 15 years.

(4) OTHER POSTEMPLOYMENT BENEFITS (OPEB)

In addition to the retirement benefits provided through MOSERS, the state of Missouri also funds, either partially or in its entirety, OPEB for eligible retirees as follows:

Retiree Life Insurance

Members who retire on or after October 1, 1985, are eligible for \$5,000 of state-sponsored basic life insurance coverage if they retire directly from active employment. As of June 30, 2013, 21,818 retirees were eligible and participating in the program. This insured defined benefit coverage is financed on a percent of payroll (.115%) and is purchased as a group policy through competitive bids and is currently administered through The Standard insurance company. The cost for year ended June 30, 2013, was \$1,833,753. Premiums are contributed entirely by the state as provided for by Section 104.515, RSMo.

Retirees of the Department of Labor and Industrial Relations (DOLIR), who retired prior to January 1, 1996, are eligible for state-sponsored insured defined benefit insurance coverage in the same amount of coverage they were receiving through the DOLIR. As of June 30, 2013, 285 retirees were eligible and participating in the program. The coverage for this closed group is purchased as a group policy through competitive bids at a current cost of \$2.07 per thousand dollars of coverage, per month, per eligible participant (\$34,804 for the year ended June 30, 2013). Premiums are paid entirely by the DOLIR as provided for by Section 228.225, RSMo. Retirees of the DOLIR who retired on or after January 1, 1996, are eligible for \$5,000 of state-sponsored life insurance coverage if they retire directly from active employment. They are included in the group described in the preceding paragraph.

Long-Term Disability Insurance

MOSERS also provides long-term disability coverage for eligible members. Membership generally includes those active members of MOSERS' retirement plans who do not have other disability coverage and are not yet eligible to receive normal (unreduced) retirement benefits. As of June 30, 2013, 34,768 members were eligible and covered under the program. This insured defined benefit coverage is financed on a percentage of covered payroll (.55%) and is purchased as group policy through competitive bids and is currently administered through The Standard insurance company. The cost for the year ended June 30, 2013, was \$7,930,941. Premiums are contributed by the state as provided for by Section 104.515, RSMo.

Postemployment Retiree Health Care

MOSERS participates in a cost-sharing multiple-employer defined benefit post-employment health care plan administered by the Missouri Consolidated Health Care Plan (MCHCP). The plan provides medical benefits to retirees of participating governmental entities. Retirees who had medical insurance coverage for six months immediately prior to termination or state-sponsored medical coverage since the effective date of the last enrollment period (or since first eligible), before they are eligible to retire, may continue coverage into retirement.

MCHCP issues a publicly available financial report that includes financial statements and required supplementary information for the postemployment health care plan. The report may be obtained by calling (800) 487-0771 or writing to MCHCP, 832 Weathered Rock Court, P.O. Box 104355, Jefferson City, MO 65110-4355.

Plan funding requests are actuarially determined, approved by the MCHCP Board of Trustees, and subject to appropriation by the Missouri General Assembly. MOSERS contributed \$240,307 in FY11, \$233,820 in FY12 and \$236,012 in FY13 in accordance with the state's funding policy toward the annual required contributions for postemployment retiree health care, which equaled MOSERS' required contribution each year.

(5) PLAN TERMINATION

MOSERS and its related plans are administered in accordance with Missouri statutes. Plans can only be terminated by an amendment to these statutes by the Missouri legislature.

On April 26, 2005, Senate Bill 202 was enacted, which terminated the Administrative Law Judges and Legal Advisors' Plan (ALJLAP) for new hires only. Under this legislation, individuals who assume a position after April 26, 2005, who would have otherwise been covered by the ALJLAP, will instead participate in the MSEP or the MSEP 2000, depending on when they initially became state employees. For fiscal years 2005 and after, all liabilities and assets of the ALJLAP were transferred and combined with the MSEP. Membership totals for ALJLAP members are combined with the MSEP in all relevant sections of this report.

(6) COMMITMENTS

As of June 30, 2013, MOSERS has \$540,611,486 and €16,407,503 unfunded commitments in the alternative investments asset class.

(7) CONTINGENCIES

The Internal Revenue Service (IRS) audited the tax qualified status of MOSERS. In a discussion draft dated August 9, 2007, the IRS raised two qualification issues but no further action has been taken by the IRS on those matters. MOSERS does not anticipate material liability for any taxes or penalties.

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Funding Progress

Pension Trust Funds - Last Six Years

MSEP

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll [(b-a)/c]
6/30/2008	\$7,838,495,768	\$ 9,128,347,470	\$1,289,851,702	85.9%	\$1,916,527,398	67.3%
6/30/2009	7,876,079,342	9,494,806,715	1,618,727,373	83.0	2,002,402,087	80.8
6/30/2010	7,923,377,393	9,853,155,445	1,929,778,052	80.4	1,945,095,321	99.2
6/30/2011	8,022,481,408	10,123,544,043	2,101,062,635	79.2	1,875,569,816	112.0
6/30/2012	7,897,167,203	10,793,651,577	2,896,484,374	73.2	1,864,069,493	155.4
6/30/2013	8,096,436,929	11,134,637,484	3,038,200,555	72.7	1,880,212,950	161.6

Judicial Plan

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll [(b-a)/c]
6/30/2008	\$ 73,194,379	\$354,796,453	\$281,602,074	20.6%	\$44,542,530	632.2%
6/30/2009	81,337,881	369,106,841	287,768,960	22.0	45,505,512	632.4
6/30/2010	88,976,738	382,012,773	293,036,035	23.3	46,112,730	635.5
6/30/2011	98,398,628	393,484,589	295,085,961	25.0	45,888,020	643.1
6/30/2012	102,266,706	413,332,538	311,065,832	24.7	45,835,501	678.7
6/30/2013	111,140,339	435,378,358	324,238,019	25.5	48,697,726	665.8

See Notes to the Schedules of Required Supplementary Information.

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Employer Contributions

Pension Trust Funds - Last Six Years

MSEP

Year Ended June 30	Annual Required Contribution		Percentage Contributed
	Percent	Dollar Amount	
2008	12.84%	\$249,770,156	100%
2009	12.53	252,105,008	100
2010	12.75	251,226,187	100
2011	13.81	263,418,048	100
2012	13.97	263,373,924	100
2013	14.45	274,655,284	100

Judicial Plan

Year Ended June 30	Annual Required Contribution		Percentage Contributed
	Percent	Dollar Amount	
2008	58.65%	\$26,215,309	100%
2009	60.07	27,725,882	100
2010	58.48	27,029,198	100
2011	60.03	27,702,682	100
2012	57.30	26,324,526	100
2013	56.92	28,330,649	100

See Notes to the Schedules of Required Supplementary Information.

REQUIRED SUPPLEMENTARY INFORMATION

NOTES TO THE SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

*Pension Trust Funds - Last Six Years***Actuarial Methods and Assumptions for Valuations Performed June 30, 2013**

The entry-age actuarial cost method of valuation is used in determining liabilities and normal cost. Differences in the past between assumed experience and actual experience (actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and interest), which are expressed as a percent of payroll. An open 30-year amortization period was used for the June 30, 2013, valuations. The actuarial value of assets is based on a method that fully recognizes expected investment returns and averages unanticipated market returns over a 3-year period. The corridor limit is currently 80% to 125%.

The investment return rate assumption used was decreased from 8.5% to 8.0% per year, compounded annually (net of investment expenses) for June 30, 2013. The price inflation assumption used was decreased from 3.2% to 2.5% per year in 2012 and remains at 2.5% for 2013. Projected salary increase assumption decreased from 4% to 3% in 2012 and thereafter. The assumption used for annual post-retirement benefit increases (COLA) is 4% (on a compound basis) when a minimum COLA is in effect. When no minimum COLA is in effect, price inflation is assumed to be 2.5% and the annual COLA is assumed to be (80% of 2.5%), on a compound basis.

2008	The actuarial valuations as of June 30, 2008, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2010.		
		Amount	Percent of Payroll
	MSEP		
	Change in benefit assumptions or methods	\$4,791,318	0.25%
	Experience and nonrecurring items	(574,958)	(0.03)
	Judicial Plan		
	Change in benefit assumptions or methods	(547,873)	(1.23)
	Experience and nonrecurring items	(160,353)	(0.36)
2009	The actuarial valuations as of June 30, 2009, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2011.		
		Amount	Percent of Payroll
	MSEP		
	State of Missouri general pay freeze	\$ (4,405,285)	(0.22)%
	Experience and nonrecurring items	55,466,538	2.77
	Change in valuation asset corridor from +/- 20% to +/- 30%	(29,835,791)	(1.49)
	Judicial Plan		
	State of Missouri general pay freeze	350,392	0.77
	Experience and nonrecurring items	496,010	1.09
	Change in valuation asset corridor from +/- 20% to +/- 30%	(141,067)	(0.31)

2010	The actuarial valuations as of June 30, 2010, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2012.		
		Amount	Percent of Payroll
	MSEP		
	State of Missouri general pay freeze	\$ (2,528,624)	(0.13)%
	Addition of new tier of benefits effective 1-1-2011	(17,311,348)	(0.89)
	Experience and nonrecurring items	25,480,749	1.31
	Change in timing of contributions	(2,528,624)	(0.13)
	Judicial Plan		
	State of Missouri general pay freeze	(308,955)	(0.67)
	Addition of new tier of benefits effective 1-1-2011	(493,406)	(1.07)
	Experience and nonrecurring items	438,071	0.95
	Change in timing of contributions	(894,587)	(1.94)
2011	The actuarial valuations as of June 30, 2011, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2013.		
		Amount	Percent of Payroll
	MSEP		
	State of Missouri general pay freeze	\$ (6,376,937)	(0.34)%
	Experience and nonrecurring items	17,630,356	0.94
	Change in normal cost due to increased participants in MSEP 2011	(2,250,684)	(0.12)
	Judicial Plan		
	State of Missouri general pay freeze	(293,683)	(0.64)
	Experience and nonrecurring items	289,095	0.63
	Change in normal cost due to increased participants in MSEP 2011	(169,786)	(0.37)
2012	The actuarial valuations as of June 30, 2012, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2014.		
		Amount	Percent of Payroll
	MSEP		
	Change in assumptions or methods	\$21,623,206	1.16%
	Experience and nonrecurring items	25,537,752	1.37
	Judicial Plan		
	Change in assumptions or methods	948,795	2.07
	Experience and nonrecurring items	320,849	0.70
2013	The actuarial valuations as of June 30, 2013, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2015.		
		Amount	Percent of Payroll
	MSEP		
	Change in benefit assumptions or methods	\$18,990,151	1.01%
	Experience and nonrecurring items	(376,043)	(0.02)
	Judicial Plan		
	Change in benefit assumptions or methods	(603,852)	(1.24)

ADDITIONAL FINANCIAL INFORMATION

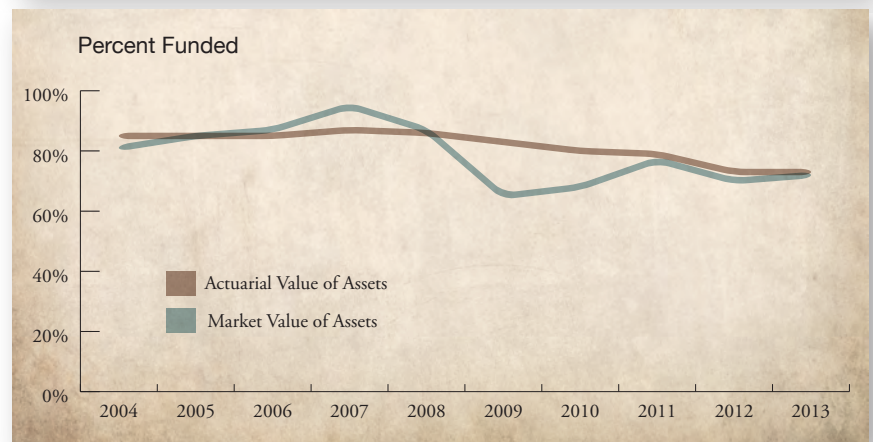
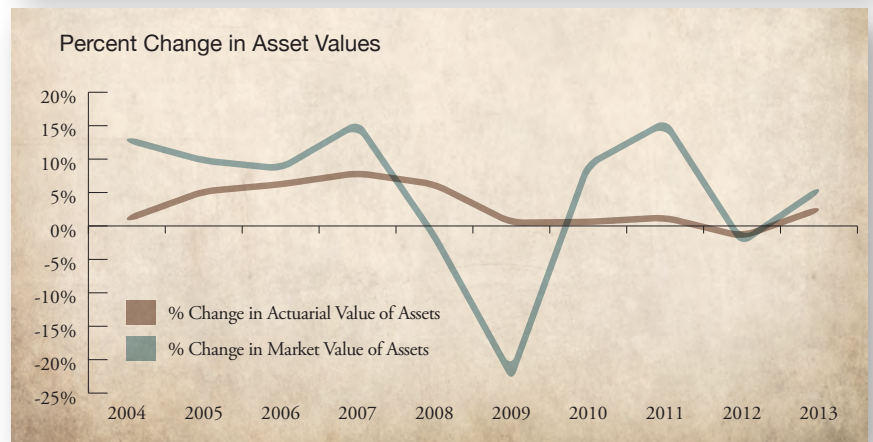
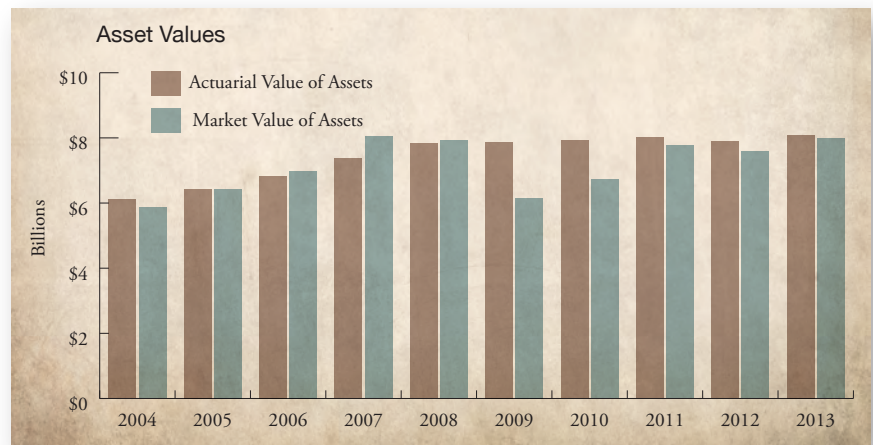
ACTUARIAL ASSET
VALUE SMOOTHING

The financing objective of the vast majority of public retirement plans is to establish contribution rates and collect contributions which remain relatively level as a percent of active member payroll over decades of time. This concept is sometimes referred to as attempting to achieve intergenerational equity, meaning that future generations will not be expected to pay more or less (in inflation adjusted terms) than the present generation contributes to support the plan.

Some critics of smoothing the actuarial value of assets suggest that pension plans are not providing “transparency” in connection with operations. Actual practice suggests otherwise. The *Statements of Fiduciary Net Position and Changes in Fiduciary Net Position* in this section are prepared on the basis of market values. Beyond that, all information related to asset values and results of investment activity in the *Investment Section* of this report is prepared on the basis of market values. This is required by the accounting and reporting standards established by the Governmental Accounting Standards Board and by the Government Finance Officers Association’s *Guidelines for the Preparation of a Comprehensive Annual Financial Report*. Both organizations have been long standing proponents of transparency in governmental accounting and reporting – public retirement plans commonly subscribe to the dictates of both.

Many public retirement plans have begun to emphasize use of asset classes that, by their nature, tend to be somewhat volatile in market value. This is being done with the objective of increasing long-term investment returns, thus providing increased benefit security for plan participants and lower contribution rates for taxpayers than would otherwise be the case. With market value accounting for contribution rate determination purposes, we could achieve more level contribution rates by employing lower volatility asset classes but the level contribution rate would be much higher than is the case with the higher return expectations we have as the result of taking on asset volatility risk.

When operating with a long-term time horizon, with contribution rate stability as a key objective, asset smoothing for actuarial purposes is simply a tool. Asset smoothing for actuarial purposes is a practical solution to responsibly achieving intergenerational equity, giving recognition to the fact that market cycles do not coincide with financial reporting periods. The use of the “market-related” value established through smoothing simply makes more sense for determining contribution rates than using market value. The charts above further illustrate the impact of smoothing volatility in actuarial computations.



ADDITIONAL FINANCIAL INFORMATION

Schedules of Investment Expenses

Pension Trust Funds - Year Ended June 30, 2013

Investing activity	MSEP	Judicial Plan	Total
Investment management and administrative fees			
Actis Emerging Markets III, IV - private equity	\$ 1,549,419	\$ 21,359	\$ 1,570,778
African Development Partners I, LLC - private equity	567,759	7,826	575,585
Alinda Infrastructure Fund I, LP - private equity	545,987	7,526	553,513
American Industrial Partners V - private equity	680,619	9,382	690,001
AQR Absolute Return Institutional Fund, LP - hedge funds	534,913	7,373	542,286
AQR DELTA Sapphire Fund, LP - hedge funds	2,086,338	28,759	2,115,097
AQR Global Risk Premium Fund, LP - beta balanced	1,329,357	18,324	1,347,681
Ashmore Investment Management, Ltd. - emerging markets	361,613	4,985	366,598
Axiom Asia Private Capital Fund II & III, LP - private equity	636,446	8,773	645,219
Axxon Group Brazil II - private equity	590,622	8,141	598,763
Baillie Gifford EAFE Plus - international equity	443,700	6,116	449,816
Bayview Opportunity Domestic, LP - high yield	4,599,481	63,400	4,662,881
Bayview Opportunity Domestic, LP III - real estate	397,302	5,476	402,778
BlackRock Financial Management Bank Loans - high yield	103,512	1,427	104,939
BlackRock Financial Management Mortgage Opportunity - high yield	223,261	3,077	226,338
Blackstone Real Estate Partners IV, V, VI, & VII - real estate	11,209,180	154,510	11,363,690
Blackstone Hedged Equity Fund, LP - domestic equity	427,491	5,893	433,384
Blackstone Topaz Fund, LP - hedge funds	4,509,145	62,155	4,571,300
Blakeney Onyx, LP - emerging markets	2,097,549	28,913	2,126,462
Brevan Howard, LP - hedge funds	2,783,766	38,372	2,822,138
Brevan Howard Emerging Markets Strategies Fund, LP - hedge funds	2,397,325	33,045	2,430,370
Bridgewater Associates Diamond Ridge Fund, LLC - hedge funds	2,689,960	37,079	2,727,039
Bridgewater All Weather, LLC - beta balanced	1,026,844	14,154	1,040,998
Bridgepoint Europe III A & IV B, LP - private equity	744,654	10,264	754,918
Campbell Timber Fund II - A, LP - timber	339,550	4,680	344,230
Catterton Partners V, VI, & VII, LP - private equity	815,909	11,247	827,156
CarVal Investors CVI Global Value Fund A, LP - real estate	569,306	7,847	577,153
CarVal Investors CVI Global Value Fund A, LP - private debt	569,306	7,847	577,153
Catalyst Fund Limited Partnership III & IV - private debt	2,274,457	31,352	2,305,809
Claren Road Credit Partners, LP - hedge funds	3,702,143	51,031	3,753,174
COMAC Global Macro Fund, LP - hedge funds	1,140,611	15,722	1,156,333
CQS ABS Feeder Fund Ltd. - hedge funds	3,147,169	43,381	3,190,550
Davidson Kempner Institutional Partners, LP - hedge funds	2,716,799	37,449	2,754,248
Diamondback Partners, LP - hedge funds	1,123,911	15,492	1,139,403
DRI Capital LSRC & LSRC II - private equity	556,351	7,669	564,020
Elliott International, Ltd. - hedge funds	3,816,402	52,606	3,869,008
Eminence Fund, Ltd. - domestic equity	3,914,798	53,963	3,968,761
Empyrean Capital Fund, LP - hedge funds	904,406	12,467	916,873
Eton Park Fund, LP - hedge funds	2,805,579	38,673	2,844,252
Garnet Sky Investors Company, Ltd. - timber	1,817,185	25,049	1,842,234
Glenview Institutional Partners, LP - hedge funds	5,288,706	72,901	5,361,607
Global Forest Partners GTI7 Institutional Investors Company, Ltd. - timber	583,186	8,039	591,225
Grantham, May and Van Otterloo & Co., LLC - emerging markets	1,323,607	18,245	1,341,852
Harvest Fund Advisors - real estate	1,179,108	16,253	1,195,361
HBK Offshore Fund, Ltd. - hedge funds	2,422,570	33,393	2,455,963
JLL Partners V & VI, LP - private equity	742,106	10,229	752,335
King Street Capital, Ltd. - hedge funds	1,609,678	22,188	1,631,866
Legg Mason Opportunity Trust - domestic equity	60,044	828	60,872
Leuthold Weeden Capital Management - domestic equity	93,902	1,294	95,196
Linden Capital Partners II - private equity	218,940	3,018	221,958
Mast Credit Opportunities I, LP - hedge funds	1,352,155	18,638	1,370,793

Continued on page 55

Schedule of Investment Expenses continued from page 54

Schedules of Investment Expenses*Pension Trust Funds - Year Ended June 30, 2013*

Investing activity	MSEP	Judicial Plan	Total
Merit Energy Partners F-II, LP - real estate	103,072	1,421	104,493
MHR Institutional Partners IIA & III, LP - private debt	10,951,815	150,962	11,102,777
Millennium Technology Partners II, LP - private equity	488,776	6,737	495,513
Morant Wright Investment Management - int'l developed equity	947,082	13,055	960,137
MOSERS Inc. - alpha pool	138	2	140
Nephila Capital Triton Master Fund, Ltd. - hedge funds	74,635	1,029	75,664
New Mountain Partners III, LP - private equity	545,467	7,519	552,986
Nippon Value Investors - int'l developed equity	200,446	2,763	203,209
NISA Investment Advisors, LLC - beta balanced	1,793,474	24,722	1,818,196
OCM Real Estate Opportunities Fund III, LP - real estate	(6,156,800)	(84,867)	(6,241,667)
OCM Opportunities Fund IVb, VIIb, VIII, LP - private debt	894,091	12,324	906,415
OCM/GFI Power Opportunities Fund II, III & IVB, LP - private equity	6,358,071	87,641	6,445,712
Parish Capital Buyout Fund I & II, LP - private equity	273,691	3,773	277,464
Parish Opportunities Fund II, LP - private equity	(116,341)	(1,604)	(117,945)
Pershing Square, LP - hedge funds	2,419,726	33,354	2,453,080
Pharo Macro Fund, Ltd. - hedge funds	4,106,541	56,606	4,163,147
Resource Management Service Wildwood Timberlands, LLC - timber	620,455	8,552	629,007
Silchester International Investors - int'l developed equity	2,865,927	39,505	2,905,432
Silver Lake Partners II, LP - private equity	(272,495)	(3,756)	(276,251)
SIRIS Partners II, LP - private equity	939,331	12,948	952,279
State Street Global Advisors - emerging markets	146,311	2,017	148,328
Stone Harbor Investment Partners, LP - emerging markets	487,891	6,725	494,616
TPG - Axon Partners (Offshore), Ltd. - hedge funds	1,046,443	14,424	1,060,867
TPG Airline Credit Opportunities - private equity	1,335,282	18,406	1,353,688
TCW Energy Partners XIV, XV, LLC - real estate	2,025,258	27,917	2,053,175
The Veritas Capital Fund III & IV, LP - private equity	5,035,613	69,412	5,105,025
Viking Global Equities III, Ltd. - hedge funds	4,591,333	63,288	4,654,621
Visium Balanced Fund, LP - hedge funds	2,708,589	37,336	2,745,925
Total investment management fees	132,037,948	1,820,042	133,857,990
Other investment fees			
Investment consultant fees			
Summit Strategies, Inc.	688,390	9,489	697,879
TimberLink Consulting	22,592	311	22,903
Investment custodial fees			
BNY Mellon	480,065	6,617	486,682
Performance and risk measurement fees			
Abel/Noser Corp.	5,918	82	6,000
Cost Effective Measurement Benchmarking, Inc.	24,660	340	25,000
BNY Mellon	241,227	3,325	244,552
Measurisk, LLC	197,281	2,719	200,000
Internal investment activity expenses	4,691,580	64,670	4,756,250
Total investing activity expenses	138,389,661	1,907,595	140,297,256
Securities lending activity			
Securities lending borrower rebates	485,363	6,690	492,053
Securities lending management fees			
BNY Mellon	123,300	1,700	125,000
Deutsche Bank	107,031	1,475	108,506
Total securities lending activity expenses	715,694	9,865	725,559
Total investment expenses	\$139,105,355	\$1,917,460	\$141,022,815

Schedules of Internal Investment Activity Expenses

Pension Trust Funds - Year Ended June 30, 2013

	MSEP	Judicial Plan	Total
Personnel services			
Salaries	\$3,472,445	\$47,865	\$3,520,310
Fringe benefits	711,325	9,805	721,130
Total personnel services	4,183,770	57,670	4,241,440
Professional services			
Attorney services	117,210	1,616	118,826
Consulting services	640	9	649
Total professional services	117,850	1,625	119,475
Communications			
Telephone	5,380	74	5,454
Total communications	5,380	74	5,454
Facilities			
Utilities	1,348	19	1,367
Lease expense	28,050	387	28,437
Facility maintenance	2,527	35	2,562
Vehicle maintenance & operation	116	2	118
Total facilities	32,041	443	32,484
Software and equipment			
Computer supplies and software	2,727	38	2,765
Total software and equipment	2,727	38	2,765
Education, meetings and travel			
Professional development including travel	5,405	74	5,479
MOSERS sponsored seminars	910	13	923
Due diligence travel	64,237	885	65,122
Tuition reimbursement	12,823	177	13,000
Total education, meetings and travel	83,375	1,149	84,524
General administrative			
Research and information services	202,786	2,794	205,580
Temporary staffing services	2,713	37	2,750
Insurance	746	10	756
Membership dues	17,972	248	18,220
Office supplies	29,567	408	29,975
Periodicals and publications	12,653	174	12,827
Total general	266,437	3,671	270,108
Total administrative expenses	\$4,691,580	\$64,670	\$4,756,250

ADDITIONAL FINANCIAL INFORMATION

Schedules of Administrative Expenses

Pension Trust Funds - Year Ended June 30, 2013

	MSEP	Judicial Plan	Total
Personnel services			
Salaries	\$3,621,611	\$ 49,921	\$3,671,532
Fringe benefits	1,375,883	18,965	1,394,848
Total personnel services	4,997,494	68,886	5,066,380
Professional services			
Actuarial services	229,663	3,166	232,829
Attorney services	126,095	1,738	127,833
Auditing services	47,841	659	48,500
Banking services	32,222	444	32,666
Consulting services	122,772	1,692	124,464
Total professional services	558,593	7,699	566,292
Communications			
Video production	3,199	44	3,243
Telephone	52,004	717	52,721
Printing	52,132	719	52,851
Postage and mailing	165,310	2,279	167,589
Total communications	272,645	3,759	276,404
Facilities			
Depreciation	96,521	1,330	97,851
Utilities	77,504	1,070	78,574
Facility maintenance	56,670	781	57,451
Vehicle maintenance	8,814	121	8,935
Total facilities	239,509	3,302	242,811
Software and equipment			
Computer supplies and software	133,359	1,838	135,197
Depreciation	144,795	1,996	146,791
Maintenance agreements	423,564	5,839	429,403
Equipment rental	140,871	1,942	142,813
Loss on sale of equipment	(1,159)	(16)	(1,175)
Total software and equipment	841,430	11,599	853,029
Education, meetings and travel			
Board travel and meetings	40,112	553	40,665
Professional development including travel	97,470	1,344	98,814
MOSERS sponsored seminars	71,100	980	72,080
Due diligence travel	1,330	18	1,348
Tuition reimbursement	159	2	161
Total education, meetings and travel	210,171	2,897	213,068
General administrative			
Advertising	9,227	127	9,354
Research and information services	84,052	1,159	85,211
Temporary staffing services	505	7	512
Insurance	128,211	1,767	129,978
Membership dues	43,467	599	44,066
Business continuity	65,586	904	66,490
Office supplies	59,807	824	60,631
Periodicals and publications	9,707	134	9,841
Miscellaneous	55,479	765	56,244
Total general	456,041	6,286	462,327
Total administrative expenses	\$7,575,883	\$104,428	\$7,680,311

ADDITIONAL FINANCIAL INFORMATION

Schedules of Administrative Expenses
Internal Service Funds - Year Ended June 30, 2013

	Life and LTD	Deferred Compensation	Total
Personnel services			
Salaries	\$252,968	\$166,303	\$419,271
Employee fringe benefits	95,496	61,057	156,553
Total personnel services	348,464	227,360	575,824
Professional services			
Attorney services	219	26,083	26,302
Auditing services	3,342	35,500	38,842
Banking services	917	0	917
Consulting services	0	6,800	6,800
Total professional services	4,478	68,383	72,861
Communications			
Telephone	3,633	470	4,103
Printing	0	298	298
Video production expense	196	614	810
Total communications	3,829	1,382	5,211
Facilities			
Utilities	5,393	0	5,393
Maintenance	4,434	0	4,434
Total facilities	9,827	0	9,827
Software and equipment			
Computer supplies and equipment	9,299	1,050	10,349
Depreciation	0	3,705	3,705
Equipment use charge	22,251	0	22,251
Equipment maintenance	29,356	3,327	32,683
Equipment rental	9,840	0	9,840
Total software and equipment	70,746	8,082	78,828
Education, meetings and travel			
Board travel and meetings	2,802	0	2,802
Professional development including travel	6,749	5,357	12,106
MOSERS sponsored seminars	4,893	870	5,763
Due diligence travel	(336)	6,050	5,714
Total education, meetings and travel	14,108	12,277	26,385
General administrative			
Advertising	625	0	625
Research and information services	0	13,432	13,432
Temporary staffing services	35	0	35
Insurance	8,955	0	8,955
Membership dues	3,036	1,374	4,410
Office supplies	4,146	0	4,146
Periodicals and publications	668	375	1,043
Miscellaneous	3,875	0	3,875
Total general	21,340	15,181	36,521
Total administrative expenses	\$472,792	\$332,665	\$805,457

ADDITIONAL FINANCIAL INFORMATION

Schedules Professional/Consultant Fees

Year Ended June 30, 2013

		Pension Trust Funds			Internal Service Funds		
Professional/Consultant	Nature of Service	MSEP	Judicial Plan	Total	Life and LTD	Deferred Compensation	Total
Operation administrative expenses							
AT&T	Information technology consulting	\$ 3,452	\$ 48	\$ 3,500	\$ 0	\$ 0	\$ 0
Avtex Solutions, Inc.	Information technology consulting	2,989	41	3,030	0	0	0
Cavanaugh Macdonald Consulting	Actuarial audit	54,252	748	55,000	0	0	0
Central Bank	Banking	30,492	420	30,912	742	0	742
Charlesworth & Associates	Risk management consulting	7,540	104	7,644	0	0	0
Collector Solutions, Inc.	Banking	1,730	24	1,754	175	0	175
Corporate Renaissance Group	Information technology consulting	82	1	83	0	0	0
Decide Smart, LLC	Strategic planning consulting	16,845	232	17,077	0	0	0
Engineering Surveys & Services	Engineering	1,297	18	1,315	0	0	0
Gabriel, Roeder, Smith & Co.	Actuarial	175,411	2,418	177,829	0	0	0
Huber & Associates, Inc.	Information technology consulting	4,270	59	4,329	0	0	0
Marberry & Eagle	Compilation services	0	0	0	0	6,800	6,800
Qflow Systems, LLC	Information technology consulting	11,049	152	11,201	0	0	0
Simon Oswald Associates, Inc.	Architectural services	74,802	1,031	75,833	0	0	0
Stacy Smith	Peer group internal audit	447	6	453	0	0	0
Thompson Coburn, LLP	Legal counsel	126,094	1,738	127,832	219	26,083	26,302
Williams-Keepers, LLC	Financial audit	47,841	659	48,500	3,342	35,500	38,842
Operation administrative expenses subtotal		558,593	7,699	566,292	4,478	68,383	72,861
Internal investment administrative expenses							
CT Corporation	Legal counsel	640	9	649	0	0	0
Purrington Moody Weil, LLP	Trading consultation	8,641	119	8,760	0	0	0
Thompson Coburn, LLP	Legal counsel	108,569	1,497	110,066	0	0	0
Internal investment administrative expenses subtotal		117,850	1,625	119,475	0	0	0
Total professional/consultant fees		\$676,443	\$9,324	\$685,767	\$4,478	\$68,383	\$72,861

Information on investment management and consulting fees can be found in the *Schedule of Investment Expenses* on pages 54-55.

ADDITIONAL FINANCIAL INFORMATION

Investment Summary
Pension Trust Funds - Year Ended June 30, 2013

Type of Investment	June 30, 2012		Purchases and Capital Additions at Cost	Sales and Redemptions at Cost	June 30, 2013		Percent of Total Fair Value
	Cost Value	Fair Value			Cost Value	Fair Value	
Fixed income							
Treasury bonds, notes, and bills	\$ 622,918,710	\$ 721,639,494	\$ 361,697,245	\$ (387,451,225)	\$ 597,164,730	\$ 593,757,630	9%
Government bonds and gov't mortgage-backed securities	67,897,364	65,071,631	14,401,918	(4,049,829)	78,249,453	70,007,740	1
Corporate bonds	101,451,287	101,340,739	55,282,846	(121,544,530)	35,189,603	34,574,802	1
Convertible bonds	4,470,783	4,094,788	145,814	(4,176,960)	439,637	654,456	0
Collateralized mortgage obligations	131,376,607	134,615,354	0	(107,857,361)	23,519,246	28,364,477	0
International corporate bonds	48,451,266	24,351,481	1,669,871	(21,275,595)	28,845,542	4,997,840	0
Bank loans	75,022,981	75,013,193	798,366	(75,265,596)	555,7501	98	0
Total fixed income	1,051,588,998	1,126,126,680	433,996,060	(721,621,096)	763,963,962	732,357,043	11
Common stock	555,769,983	622,476,004	21,155,636	(259,009,422)	317,916,197	377,714,662	5
Preferred stock	6,338,634	4,819,409	0	(6,338,634)	0	0	0
International investments							
International equities	766,364,171	1,168,440,869	12,856,556	(390,876,938)	388,343,789	933,430,550	14
Foreign currency	4,028,124	3,432,478	47,563,750	(43,767,282)	7,824,592	7,862,572	0
Total int'l investments	770,392,295	1,171,873,347	60,420,306	(434,644,220)	396,168,381	941,293,122	14
Real estate							
Real estate investment trust	4,668,314	5,012,592	0	(4,668,314)	0	0	0
Venture capital limited partnerships	2,899,946,070	3,826,932,808	1,310,143,905	(441,077,196)	3,769,012,779	4,870,969,314	70
Investments (per Statements of Fiduciary Net Position page 26)	5,288,704,294	6,757,240,840	1,825,715,907	(1,867,358,882)	5,247,061,319	6,922,334,141	100%
Short-term investments							
Short-term investment funds	933,019,137	933,019,137	1,925,462,825	(1,666,144,196)	1,192,337,766	1,192,337,766	
Repurchase agreements	9,887,144	9,887,144	2,085,048,189	(2,084,523,937)	10,411,396	10,411,397	
Total short-term investments	942,906,281	942,906,281	4,010,511,014	(3,750,668,133)	1,202,749,162	1,202,749,163	
Invested securities lending collateral							
Corporate bonds	14,579,520	16,615,978	0	(8,067,516)	6,512,004	13,894,071	
Short-term investment funds	675,860,505	675,860,505	3,968,174,445	(4,196,162,255)	447,872,695	447,872,695	
Total invested securities lending collateral	690,440,025	692,476,483	3,968,174,445	(4,204,229,771)	454,384,699	461,766,766	
Total investments	<u>\$6,922,050,600</u>	<u>\$8,392,623,604</u>	<u>\$9,804,401,366</u>	<u>\$(9,822,256,786)</u>	<u>\$6,904,195,180</u>	<u>\$8,586,850,070</u>	

Investment Summary
Internal Service Funds - Year Ended June 30, 2013

Type of Investment	June 30, 2012		Purchases and Capital Additions at Cost	Sales and Redemptions at Cost	June 30, 2013		Percent of Total Fair Value
	Cost Value	Fair Value			Cost Value	Fair Value	
Repurchase agreements	\$3,532,260	\$3,532,260	\$892,024,960	\$(892,298,964)	\$3,258,256	\$3,258,256	100%

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.



Investment SECTION

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CHIEF INVESTMENT OFFICER'S REPORT

**Missouri State Employees' Retirement System**

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Visit us at 907 Wildwood Drive, Jefferson City, MO

October 15, 2013

Dear Members:

I am pleased to present the *Investment Section* of the *MOSERS Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2013. A few highlights of the year follow:

- As of June 30, 2013, your pension fund had total assets of \$8.1 billion.
- The investment portfolio generated approximately \$780 million in net earnings during the year representing a return of 10.4%, net of all fees and expenses.
- The portfolio outperformed the policy benchmark by 2.2% during the year, contributing nearly \$165 million of the \$780 million in total earnings.
- Including this year, the portfolio has generated returns in excess of the policy benchmark in 12 of the last 15 years aggregating to nearly \$2 billion in value added over that time frame.

A Review – FY13

The markets entered the fiscal year with low expectations arising from a slowing U.S. economy, a difficult U.S. fiscal position, inflamed societies in the Middle East and Europe, and a historically large debt problem in the European Union. Following the U.S. presidential election, attention turned to the fiscal cliff – a set of events that would both raise taxes and reduce government spending simultaneously. Meanwhile, on the other side of the world, Cyprus was threatening to reignite the European debt crisis that the European Central Bank (ECB) had fought so hard to contain.

In the face of all this uncertainty it was surprising that risk assets continued their upward trend. Much of the confidence needed to see through the negatives came from the global central banks. Early in the first half of the year, the ECB committed to outright monetary transactions – the European version of quantitative easing. This action helped to lower yields and fiscal stress in the European block countries. Not long after the ECB's proclamation, the Federal Reserve entered the home mortgage market by buying \$40 billion per month of agency mortgage backed debt in an effort to save the nascent housing recovery. Then by December, in an effort to offset the effects of a possible debt ceiling and fiscal cliff, the Federal Reserve increased bond purchases to \$85 billion per month, split \$45 billion in government debt, and \$40 billion in agency mortgage-backed debt. Not to be left out of the party, Japan's Prime Minister announced a massive effort to weaken the yen and increase inflation through, among other things, massive money printing and central bank support for bank loans. As a result of large scale global stimulus by the last quarter of the fiscal year markets were ebullient.

However, interest rates had begun to rise on rumors the Federal Reserve was considering reducing the size of their bond purchase program. By mid-June these rumors were confirmed by Chairman Bernanke, causing an escalation in the rate at which interest rates increased through the end of June. Early in the quarter, risk assets performed well, however, following Bernanke's speech investors got worried about the impacts of higher interest rates on economic growth and risk assets turned negative. In the end, the losses in June were enough to cause most risk assets to post a negative quarter while at the same time U.S. Treasuries lost money. For several years

running there had been a strong negative relationship between equities and U.S. Treasuries. When equities rose, Treasuries fell and visa-versa. The last quarter of fiscal year 2013 saw this trend reverse with both stocks and bonds posting negative returns.

The best performing sub-asset class in the portfolio for the year was domestic equities which advanced 27.1%. Other notable positive contributors were developed international equities at 23.6%, real estate at 21.6% and private investments at 13.9%. Sub-asset classes that detracted from the overall return included commodities up 1.1%, beta balanced down 5%, and inflation indexed bonds down 4.8%.

Our Beliefs - Timeless

The foundation of our investment success is a set of fundamental beliefs that have guided our investment program for nearly two decades. Simply stated, our investment beliefs are:

- Portfolio management should first focus on an understanding of the economic drivers of investment risk and then should seek, as a starting point, a portfolio that is generally balanced to those risks.
- Diversification is critical because the future is unknown.
- Every investment should be examined in the context of its potential return from beta (market return) and alpha (value added return); while separation is not always possible, every effort should be made to distinguish the two distinct return components.
- Flexibility to opportunistically alter the portfolio away from policy is important because markets will be in or out of favor at different points in the economic cycle.

Our Experience - Unique

In June 2002, the MOSERS Board of Trustees adopted an investment policy which at the time was considered leading edge among pension funds. The policy recognized (i) a broadly diversified asset allocation should contain asset classes which possess different return drivers such that some of these investments should be performing well regardless of the type of economic conditions that are being experienced at the time, (ii) the need to empower investment professionals to make strategic shifts in portfolio composition when market opportunities warrant and (iii) the importance of increasing active risk while reducing equity market risk in the portfolio, through efficient alpha strategies and manager implementation. The end result of the 2002 study was the plan to reduce public equity investments from 75% to 50%, while adding new asset classes including high yield bonds, timberland, private equity and debt, real estate and absolute return strategies. Beyond changes to the policy allocation, investment staff was given the latitude to make strategic shifts (increasing active risk) within ranges.

Five years later, in July 2007, another formal asset/liability study was completed and the decision was made to further enhance diversification with the goal of reduced contribution rate volatility. Changes to the asset allocation that took place at that time included reducing public equity from 50% to 45% and moving to a global equity benchmark thus eliminating the home country bias in our asset allocation. Additionally, alternative investments were increased from 20% to 25%, including an increase of 2.5% in private investments and 2.5% in the real assets category.

In 2012, in following with the board's policy to perform a formal asset liability study every five years, another asset/liability study was conducted. In the aggregate, the portfolio was expected to generate an annualized return of 7.25% over the next ten years. At that time, it became clear that (i) the policy allocation would need to be altered to produce higher returns or (ii) the assumed rate of return would need to be lowered from 8.5% to something more in-line with portfolio expectations or (iii) some combination of the previous two would need to be implemented.

The board decided to lower the assumed rate of return from 8.5% to 8% in recognition of the low interest rate environment and its impact of expected returns for capital markets. However, the board was also convinced that a risk-weighted allocation model would allow the system to achieve higher returns at similar levels of volatility

when compared to the existing investment policy allocation. As a result, the MOSERS Board of Trustees, as it did in 2002, made the tough choice to head down a road less traveled in adopting a new risk-based approach to asset allocation.

At the highest level, the allocation calls for a beta balanced portfolio to pursue equal risk weights to four very liquid broad market betas and a fifth moderately liquid set of alternative betas typically found in today's hedge fund strategies. The risk weights were established based on long-term estimates of volatility and correlations except in those cases where history suggested negative correlation and in those instances our estimates were set at zero. With a focus on an unknown future, our research led us to conclude that equal risk weighting of the five betas (global equities, nominal bonds, inflation indexed bonds, commodities and hedge fund/alternative betas) would provide maximum diversification to the total portfolio across various growth and inflation regimes. The board provided a great deal of flexibility to staff to transition from the old asset allocation policy to the new allocation over a multi-year time frame as investment opportunities presented themselves.

Our Future – Focused

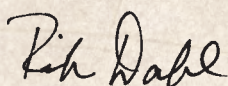
For MOSERS, risk weighting is simply a more structurally sound foundation from which to build on. It provides us with a solid anchor amid the distractions constantly inundating our inboxes. The risk of this approach is not manifested in levered bonds, no more than in equities, commodities or other alternative risk premiums that make up its structure. The real risk in risk weighting is being different from the traditional equity centric portfolio during periods of strong equity markets like the one we are currently experiencing. Being different when the market is in your favor is difficult enough, being different when the markets are working against you requires diligence and fortitude.

Certainly the last few months of FY13 posed this challenge. During this period, all variants of risk-weighted portfolios suffered in absolute terms and relative to the more equity centric traditional portfolio. Not surprisingly, the naysayers have used this period to proclaim the beginning of the end for risk-weighted portfolio design. They pontificate that risk-weighting methodologies are nothing more than levered bond portfolios and since it's now clear that interest rates have bottomed and a new bear market in bonds has started, risk-weighting will die a well-deserved death. Our view at MOSERS stands in stark contrast to that position. We believe that you will be better served with a portfolio positioned to perform well over time regardless of what lies ahead for interest rates, or inflation, or growth for that matter. While an equity centric portfolios will win when growth comes in above expectation and may also win when inflation comes in below expectation, they will most decidedly lose when the opposite of those conditions exist. History has taught us that there will be times in the future when those opposite conditions exist.

Regardless of what happens in the short-term, we are well prepared to stay the course. We have a seasoned group of investment professional steeped in an investment philosophy that finds at its cornerstones broad diversification, a contrarian style, strong risk management practices, and a sound governance process. It is this foundation that has served you well over the years and is likely to continue to serve you well in the future. We are disciplined in our approach and focused on generating the best long-term investment returns for you, the members and all Missouri taxpayers.

I would like to thank the executive director and the board for their leadership and willingness to provide us the flexibility and resources we need to pursue excellence in all that we do.

Best regards,



Rick Dahl
Chief Investment Officer

INVESTMENT CONSULTANT'S REPORT



Summit Strategies Group

October 15, 2013

The Board of Trustees
Missouri State Employees Retirement System
907 Wildwood Drive
Jefferson City, MO 65109

Dear Board Members,

Most times, the simplest questions require the most thought to answer. In 2012, you asked the investment staff and Summit, “What’s the best way to invest?” At the 2012 board retreat in July, we spent almost two full days giving you our best answer to this very direct question. And, as has become a hallmark of the governance at MOSERS over the past 15 years, you listened; you questioned and challenged, heard the pros and cons of our proposal, and eventually adopted a very new investment program and structure. In doing so, you once again broke away from the status quo, jettisoned an award-winning, top-decile-performing portfolio that had served the participants and the state better than almost any other public pension plan in the country. You approved a structure we believe will be the “best way” to achieve MOSERS’ goals for the next generation.

As a brief history lesson, the MOSERS board has been willing to look forward and break from the consensus when it believed the opportunity set warranted doing so. Simply put, when the rewards of being different than the pack justified the risk of being different than the pack, MOSERS has repeatedly been willing to do just that. MOSERS was the first public pension fund I know of to delegate manager hiring/firing decisions to staff and consultant in 1998, one of the first mid-sized public funds to build internal investment expertise and trading capabilities, an early mover in the acceptance of and utilization of alternative strategies, and implement the ability to tactically position the portfolio when opportunities presented themselves. Each of these moves has added substantially to the consistent record of value-added investment results.

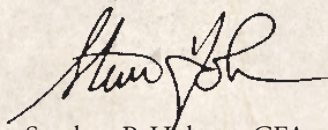
The decision made by the board to adopt a portfolio structure dominated by a “beta-balanced” approach is the most significant “different from the pack” decision in MOSERS history. Rooted in academic theory and research, “beta balanced” investing recognizes that investors must assume risk to achieve any sort of long-term real return, but there are more investment risks to which an investor can gain exposure beyond equity “beta” risk. Through the prudent use of leverage, an investor can essentially equalize the risk and return expectation of these various risks and diversify the portfolio across them. Cutting to the chase, MOSERS’ staff and Summit believe these portfolios are the most efficient portfolios one can construct. Our expectation is that MOSERS will receive more return per unit of risk with this approach over time than a typical equity-dominated portfolio (i.e. “the pack” of typical institutional investors).

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If the pack has the vast majority of its risk exposure in equities and MOSERS' risk is spread out over several risks, it's fairly intuitive when MOSERS should be outperforming and when the pack should be outperforming. When equity markets are very strong, like during the past year, the pack (with the majority of its risk exposure in equities) should shine, and when equities are weak or other risks are being rewarded, MOSERS should shine. Put a full market cycle together and we believe the "beta balanced" approach adopted by the board in the past fiscal year has the highest probability of meeting the return requirements set for the fund. It's just going to be very different. Better, but different. The tradition of innovation at MOSERS continues and, if history can be our guide, the participants and state of Missouri will be better off for it.

Thanks for the continuing faith you have shown in us. It has been an enormous part of the Summit success story, which is actually a great Missouri success story.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen P. Holmes". The signature is fluid and cursive, with a large initial "S" and "H".

Stephen P. Holmes, CFA

President

INVESTMENT POLICY SUMMARY

Guiding Principles

Critical to the financial security of present and future benefit recipients is the effectiveness and efficiency of the system's asset management program. The MOSERS Board of Trustees, charged with the responsibility for investing the assets of the system in a manner consistent with fiduciary standards set forth in the prudent person rule, has adopted the following fundamental principles to guide all investment-related decisions:

- Preserve the long-term corpus of the fund.
- Maximize total return within prudent risk parameters.
- Act in the exclusive interest of the members of the system.

The investment policy summary serves as a reference point for management of system assets and outlines MOSERS' investment philosophy and practices. Investments within this report are presented on the basis of fair market value using a variety of sources such as appraisals, valuations of underlying companies and assets for limited partnerships and commingled funds, and through market values obtained from the investment custodian.

Investment Objective

In keeping with the three guiding principles, the board has adopted the following broad investment objectives:

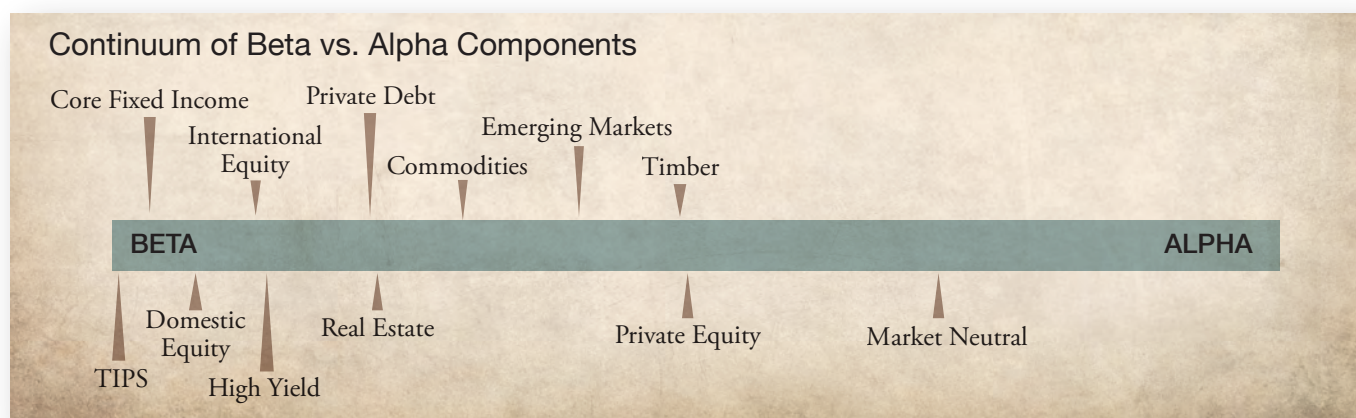
- Develop a real return objective (RRO) that will keep contribution rates reasonably level over long periods of time, absent changes in actuarial assumptions.
- Establish a risk balanced allocation policy that is expected to meet the RRO over long periods of time, while minimizing the impact of the fund's volatility on the contribution rate.
- Maximize the return per unit of cost of the investment program through the efficient use of internal and external resources.

Investment Beliefs

MOSERS' internal investment staff and external asset consultant have arrived at investment beliefs, which are the foundation for implementation of the investment portfolio to achieve the board's objectives. These beliefs guide every decision made within MOSERS' portfolio. They are the fundamental concepts underlying the MOSERS investment program. These beliefs are:

- **Portfolio construction should focus first on the allocation and balancing of risk; it is the allocation of risk that drives portfolio returns.** While investment returns receive a lot of public attention, understanding and balancing risk across asset classes improves the consistency of returns for a given level of risk and thus provides more stability in the contribution rate for the employer. Returns are the end product, where risks are the ingredients.
- **Diversification is critical because the future is unknown. Reliable diversification requires a fundamental understanding of the economic drivers of risk and return.** MOSERS' policy portfolio has been built upon the premise that very little is known about what the future holds. Therefore it is rational to construct a portfolio that is believed to combat various economic conditions. The following table reflects various economic environments and the types of investments that should be expected to perform well in those environments.

Economic Environments	
	Growth Inflation
Rising	Equities • Commodities • Illiquids Hedge Fund/Alternative Betas
Falling	TIPS • Nominal Bonds
	Equities • Nominal Bonds • Illiquids Hedge Fund/Alternative Betas



- **Every investment should be examined in the context of its potential return from beta (market return) and alpha (value added return); while separation is not always possible, every effort should be made to distinguish the two distinct return components.** Beta is the return which is expected to be earned by investing passively within a specific asset class or compensated risk premium. Exposures to beta can be purchased cheaply, and over long periods of time, the beta return should be positive and coincide with the risk associated with a given asset class. In contrast, alpha is the return generated through a manager's ability to select particular investments that perform better than the asset class as a whole. Alpha is a zero-sum game.

Regardless of the source of the return, it is important to construct the portfolio based on a conscious decision to include a certain amount of beta exposure in the portfolio and a certain amount of alpha exposure. By consciously selecting this balance within the portfolio, staff is better able to manage the risks of the portfolio while ensuring the RRO is achieved. The chart above reflects the continuum of beta versus alpha components that are in the portfolio.

- **Flexibility to opportunistically alter the portfolio away from risk-balanced when markets are driven to extremes as result of short-term economic cycles is an important portfolio management tool.** As a result of the cyclical nature of the economy, asset classes or investment strategies may be more or less attractive relative to others in given time frames, thus marginal flexibility in the allocation policy provides the system with the opportunity to capitalize on this within prudent risk constraints. Under circumstances where the valuations of a particular asset class are compelling, it may make sense to modify the portfolio's allocation at the margins in order to capitalize on attractively valued opportunities without exposing the fund to additional risk.

Roles and Responsibilities

Board of Trustees

The board of trustees bears the ultimate fiduciary responsibility for the investment of system assets. Members of the board must adhere to state law and prudent standards of diligence with respect to their duties as investment fiduciaries. Accordingly, they are required to discharge their duties in the interest of plan participants. They must also "act with the same care, skill, prudence, and diligence under prevailing circumstances that a prudent person, acting in a similar capacity and familiar with those matters, would use in the conduct of a similar enterprise with similar aims."¹ Specifically related to investments, the board is charged with the duties of establishing and maintaining broad policies and objectives for the investment program along with the recommendations of staff and the external asset consultants.

Executive Director

The executive director is appointed by and serves at the pleasure of the board. The board has given the executive director broad authority for planning, organizing, and administering the operations and investments of the system under broad policy guidance from the board. Specifically with regard to investments, the executive director is broadly responsible for the oversight of the investment program. The executive director must ensure that system assets are invested in accordance with the board's policies and that internal controls are in place to safeguard system assets. The executive director must also certify that all manager hiring and termination decisions were made in accordance with the board's governance policy. In addition, the executive director certifies strategic allocation decisions were made in accordance with the governance policy.

¹ Section 105.688, RSMo - Investment Fiduciaries, Duties.

Chief Investment Officer and Internal Staff

The CIO serves at the pleasure of the executive director, yet has a direct line of communication with the board on investment-related issues. The CIO has primary responsibility for the overall direction of the investment program. The CIO works with the external asset consultants and executive director in advising the board on policies related to the investment program. The CIO has primary responsibility to make hiring and termination decisions related to money managers with the approval of the external asset consultant. The CIO is also charged with the responsibility of making strategic allocation decisions with the approval of the external asset consultant. Other responsibilities of the CIO include monitoring the investment of system assets, oversight of external money managers and the internally managed portfolios, and keeping the board apprised of situations which merit their attention. The internal investment staff is accountable to the CIO.

External Asset Consultants

Summit Strategies Group of St. Louis, Missouri serves as the system's external general asset consultant and at the pleasure of the board. The primary duties of the external general asset consultant are to:

- Advise the board on policies related to the investment program.
- Provide a third-party perspective and level of oversight to the system's investment program.

The external general asset consultant must approve all manager hiring and termination decisions and strategic allocation decisions made by the CIO. The external asset consultant provides advice and input to the CIO and internal investment staff on investment-related issues and money manager searches.

Blackstone Alternative Asset Management serves as the system's external hedge fund consultant at the pleasure of the board. The primary duties of the external hedge fund consultant are to:

- Advise the board on policies related to the hedge fund program.
- Provide a third-party perspective and level of oversight to the system's hedge fund investment program.

The external hedge fund consultant must approve all hedge fund manager hiring and termination decisions. The external hedge fund consultant provides advice and input to the CIO and internal investment staff on hedge fund program issues and manager searches.

Chief Auditor

The chief auditor reports directly to the executive director and if, in the opinion of the chief auditor circumstances warrant, may report directly to the board. The chief auditor is independent of the system's investment operations and, among other things, is responsible for providing objective audit and review services for the investment operations. It is the chief auditor's objective to promote adequate and effective internal controls at a reasonable cost, which results in suggested improvements that will lead to economies and efficiencies in the system's investment operations.

Master Custodian

Bank of New York Mellon serves as the master custodian of the system's assets except in cases where investments are held in partnerships, commingled accounts, or unique asset classes where it is impossible for them to do so. The master custodian is responsible for maintaining the official book of records, providing performance reports, and serving as an additional layer of risk control in the safekeeping of system assets.

Asset Allocation

Determining the system's asset allocation is regarded as one of the most important decisions in the investment management process. The board, with advice from staff and the general asset consultant, has developed a risk-weighted policy allocation that is designed to achieve the long-term required return objectives of the system, given certain risk constraints. The current allocation reflects the need for a diversified portfolio, which will perform well in a variety of economic conditions and will help reduce the portfolio's overall volatility. In determining the optimum mix of assets, the board considers five factors:

- The expected rate of return for each asset class.
- The expected risk of each asset class.
- The correlation between the rates of return of the asset classes.
- The investment objectives and risk constraints of the fund.
- The impact of the portfolio's volatility on the contribution rate.

MOSERS Asset Allocation

Asset Class	Policy Weight	Allocation Range	Policy Benchmark
Public Equity	24.40%		MSCI ACWI
Domestic	Benchmark weight*	+/- absolute 5.4%	
Int'l developed	Benchmark weight*	+/- absolute 5.4%	
Emerging markets	Benchmark weight*	+/- absolute 2.7%	
Public Debt	16.20%		Blended Return
Core fixed income	5.40%	2.7% - 8.1%	Barclays Aggregate
TIPS	5.40%	2.7% - 8.1%	Barclays TIPS
High yield	2.70%	0.0% - 5.4%	Barclays High Yield
Market neutral	2.70%	0.0% - 5.4%	T-Bills + 4%
Alternatives	22.70%		Blended Return
Real assets	13.60%	9.1% - 18.2%	Blended Return**
Commodities	2.70%		GSCI
Timber	5.45%		NCREIF Timber
REITS/private RE	5.45%		Wilshire REITs
Private investments	9.10%	4.5% - 13.6%	S&P 500 + 3%
Private equity	6.80%		
Private debt	2.30%		
Beta Balanced	36.70%***		Blended Return
Beta balanced equities	4.00%		MSCI ACWI
Beta balanced nominal bonds	8.10%		Barclays Long Treasury
Beta balanced inflation indexed bonds	13.90%		Barclays U.S. TIPS 1-10 Yr.
Beta balanced commodities	3.70%		GSCI
Beta balanced hedge funds/alternative betas	7.00%		AQR Delta

* The public equity sub-asset class target allocations are not static weights. The weights float based upon capitalization of the MSCI ACWI benchmark.

** The policy benchmark is based upon the blending of GSCI, NCREIF Timberland, and Dow Jones U.S. Select REITs at their policy benchmark weights.

*** The policy benchmark is levered 1.1 times capital.

While the board maintains a set policy allocation mix, they have taken steps to provide flexibility by granting authority to the CIO, with the approval of the external asset consultants and certification of the executive director, to make strategic allocation decisions to capitalize on attractively valued opportunities within prudent risk constraints. This flexibility has allowed the system to take advantage of changing market conditions. The table above illustrates the policy asset allocation and ranges formally adopted by the board as of June 30, 2013.

Rebalancing

It is the responsibility of staff to ensure that the asset allocation adheres to the system's rebalancing policy. MOSERS utilizes a combination of cash market and exchange traded futures transactions to maintain the total fund's allocation at the broad policy level. Month-end reviews are conducted to consider whether to bring the portfolio back within allowable ranges of the broad policy targets.

Risk Controls

MOSERS' investment program faces numerous risks; however, the primary risk to MOSERS is that the assets will not support the liabilities over long periods of time. In order to control this risk and numerous other risks that face the system, the board has taken the following steps, on an ongoing basis, to help protect the system:

- Actuarial valuations are performed each year to ensure the system is on track to meet the funding objectives of the plan. In addition, every five years an external audit of the actuary is conducted to ensure that the assumptions being made and calculation methods being utilized are resulting in properly computed liabilities.
- Asset/liability studies are conducted at least once every five years. The purpose of these studies is to ensure that the current portfolio design is structured to meet the system's liabilities. During these studies, investment expectations are also reexamined in more detail.

- A governance policy, which incorporates investment limitations, is in place to ensure that board policies are clearly identified. Within these documents, desired outcomes are identified, responsibilities for individuals are identified in relation to particular areas of the portfolio's management, and details are provided for measuring outcomes. Reporting requirements are clearly identified to ensure appropriate checks and balances are in place. In addition, annual performance audits are conducted to ensure the performance measurement tools and methodologies being utilized are proper.

Performance Objectives and Monitoring Process

Generating returns net of expenses equaling the RRO of 5.5% plus inflation remains the primary performance objective for the total fund over the long term.

The reason for the long-term focus on this objective is to preclude the temptation to overreact to events in the marketplace that have no relevance in the management of the relationship between the system's assets and liabilities. The resulting dilemma is the conflicting need to evaluate investment policy implementation decisions over shorter time frames while maintaining the longer-term focus necessary to manage and measure the fund's performance relative to the RRO. To address this problem, the board evaluates performance relative to policy and strategy benchmarks. This helps to evaluate the board's broad policy decisions and the staff and external consultant's implementation decisions. Policy benchmarks measure broad investment opportunities of each sub-asset class in which MOSERS has chosen to invest. The strategy benchmarks represent decisions made by the CIO to strategically deviate from the policy asset allocation for each sub-asset class. The return of the strategy benchmarks are determined based upon the actual weight of the asset class multiplied by the appropriate benchmark.

The policy and strategy benchmarks are used in the following manner to evaluate board and staff decisions:

- **Board Decisions:** The value added through board policy decisions is measured by the difference between the total fund policy benchmark return and the RRO. This difference captures the value added by the board through their policy asset allocation decisions relative to the return necessary to fund the system's liabilities. A policy benchmark return greater than the RRO reflects value added through board decisions. A policy benchmark return less than the RRO reflects losses or shortfalls in performance in funding the liabilities. These policy decisions are measured over long periods of time.
- **CIO and External Consultants' Decisions:** There are two components to decisions made by the CIO and external consultants, which are monitored by the board on an ongoing basis. They are: 1) strategic allocation decisions, and 2) implementation decisions.

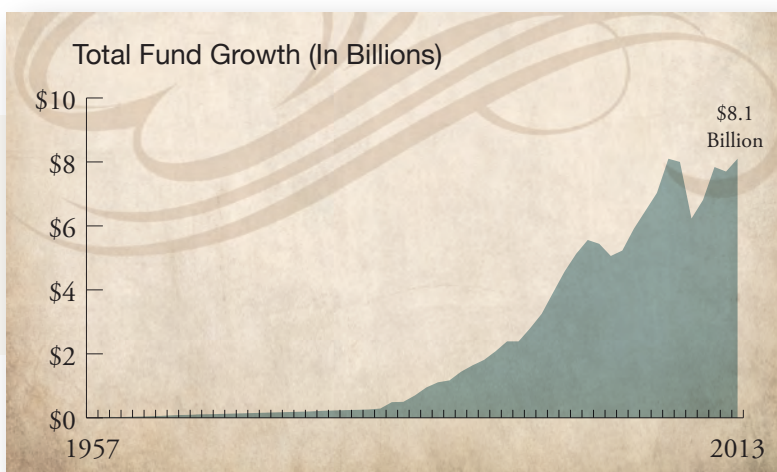
Strategy decisions are made by the CIO, with the approval of the external general asset consultant and the review of the executive director to deviate from the policy benchmark weight. The difference between the strategy benchmark return and the policy benchmark return captures the value added by the CIO through strategic decisions to overweight or underweight asset allocations relative to the board's policy allocation decisions. A strategy benchmark return greater than the policy benchmark return reflects value added through the sub-asset class allocation decisions. A strategy benchmark return less than the policy benchmark return reflects losses to the fund's performance based upon strategy decisions. Strategy decisions should be measured over all periods of time with majority weight placed on outcomes that have occurred over a market cycle.

Implementation decisions are money manager selection choices made by the CIO with the approval of the appropriate external consultant and the certification of the executive director that the decision was made in accordance within the board's adopted governance policy. The value added through these decisions is measured by the difference between the actual portfolio return and the strategy benchmark return. This difference captures the value added through these external manager selection decisions. An actual portfolio return greater than the strategy benchmark return reflects value added through these external manager selection decisions. An actual portfolio return less than the strategy benchmark return reflects losses to the fund's performance based upon implementation decisions. Implementation decisions should be measured over all periods of time with a majority weight placed on outcomes that have occurred over a market cycle.

The board reviews performance information on a quarterly basis to help ensure adequate monitoring of the fund's overall performance objectives.

TOTAL FUND REVIEW

As of June 30, 2013, the MOSERS investment portfolio had a market value of \$8.1 billion. The graph to the right illustrates the growth of MOSERS' portfolio since the system's inception.

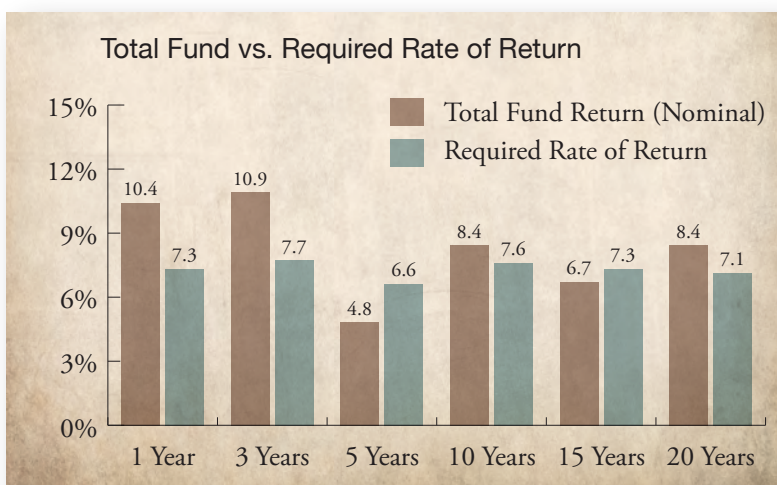


Investment Performance

MOSERS' investments generated a return of 10.4%, net of fees, for FY13. The total fund return exceeded the 1-year policy benchmark of 8.2%. This additional 2.2% investment return produced \$147.6 million over what would have been earned if the fund had been invested passively.

Investment Performance vs. the Required Rate of Return

The total fund investment return is compared to a required rate of return. The required rate of return is established by the board to determine how well the fund is performing over the long term in order to meet future plan obligations after accounting for inflation. The required rate of return for FY13 is equal to the RRO (5.5%) plus inflation. The best known measure of inflation is the Consumer Price Index (CPI).²



Given the unpredictability of the investment markets, the portfolio should not be expected to meet the required rate of every year. A review of long periods of time is best to evaluate whether or not the total return has kept pace with the system's funding objectives.

The bar chart above reflects that MOSERS' investment returns have exceeded the required rate of return by 1.3% over the 20-year period ended June 30, 2013.³

Investment Performance vs. Benchmark Comparisons

In addition to measuring performance relative to the required rate of return, the board also compares fund returns to the following two market benchmarks: the policy benchmark and the strategy benchmark.

The policy benchmark provides an indication of the returns that have been achieved (excluding transaction costs) by a portfolio invested passively in the broad market with percentage weights allocated to each asset class in MOSERS' policy asset allocation. Comparison of the total return to the policy benchmark is a reflection of the extent to which the asset allocation (beta) kept pace with the system's funding objectives. The total fund 1-year actual performance exceeded its policy benchmark by 2.2%, with the actual 3-, 5-, 10-, 15-, and 20-year returns also exceeding the policy benchmarks by 0.9%, 0.9%, 1.2%, 1.5% and 0.9%, respectively.

² CPI Source: United States Department of Labor, Bureau of Labor Statistics (not seasonally adjusted).

³ Performance returns are calculated using a time-weighted rate of return on market values.

Investment Section

The strategy benchmark is more narrowly defined and focuses on sub-asset class allocation decisions made by the CIO. By comparing the policy benchmark to the strategy benchmark, the board is able to determine the value added through strategic decisions (active management) made by the CIO. Value is created when the strategy benchmark returns exceed the policy benchmark returns.

Returns for the total fund versus these benchmarks are displayed in the bar chart to the right.

Similarly, by comparing the actual return to the strategy benchmark, the board will, over the long term, be able to judge the success or failure of the staff and the consultant in implementing the CIO's strategic decisions. The primary implementation decision is in determining which managers the fund should employ. Value is added from manager selection when the total fund return exceeds the strategy benchmark return.

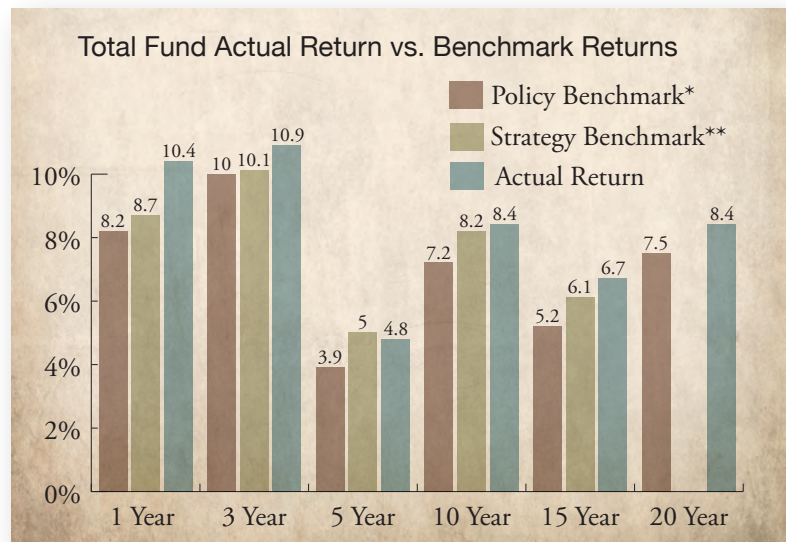
Total Fund Policy Allocation Overview

As of June 30, 2013, the board's broad policy allocation mix was 24.4% public equity, 16.2% public debt, 22.7% alternative investments, and 36.7% beta balanced. The policy target, as of June 30, 2013, for each sub-asset class, along with the actual strategic allocation to each type of investment is shown in the bar graph at the top of the following page.

The board has granted authority to the CIO to make strategic decisions related to the allocation subject. A strategic decision should be thought of as any decision that might cause MOSERS' actual portfolio to differ from the policy asset allocation.

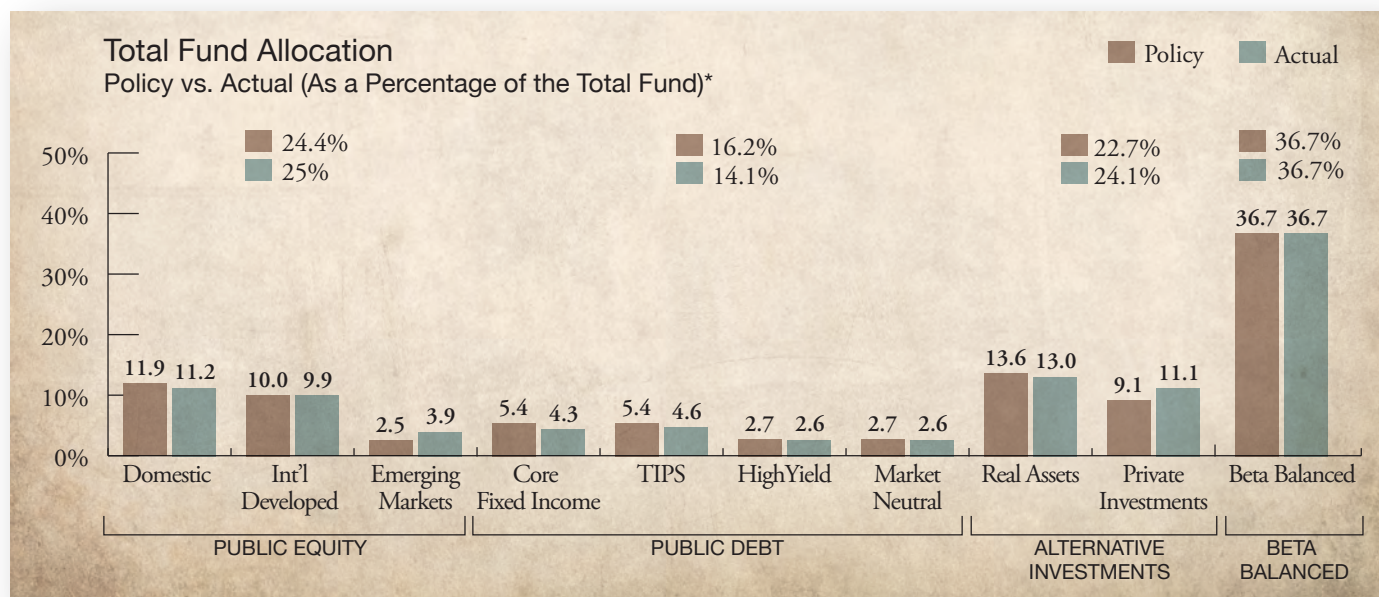
This has allowed MOSERS to capitalize on investment opportunities at the margin by overweighting asset classes that are viewed as "cheap" relative to their historical norm and underweighting asset classes that are "expensive" relative to their historical norm.

The asset allocation is built upon the belief that diversification is critical. The tables on the following page reflect the asset classes and their correlation to each other and the statistical performance data (net of fees) of the total fund as of June 30, 2013.



* As of 6/30/13, the policy benchmark was comprised of the following components: 24.4% total public equity policy benchmark, 16.2% total public debt policy benchmark, 22.7% total alternative investments policy benchmark, and 36.7% total beta balanced.

** As of 6/30/13, the strategy benchmark was comprised of the following components: 25.0% total public equity strategy benchmark, 14.1% total public debt strategy benchmark, 24.2% total alternative investments strategy benchmark, and 36.7% total beta balanced strategy. A strategy benchmark for the 20-year period is not available.



Total Fund - Correlation Table - 5 Years

	Public Equity	Core Fixed Income	TIPS	High Yield	Market Neutral	Real Assets	Private Investments
Public equity	1.00						
Core fixed income	0.45	1.00					
TIPS	0.39	0.78	1.00				
High yield	0.67	0.41	0.49	1.00			
Market neutral	0.66	0.19	0.48	0.76	1.00		
Real assets	0.67	0.52	0.38	0.35	0.56	1.00	
Private investments	0.67	0.48	0.41	0.51	0.63	0.72	1.00

Total Fund - Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year	15 Year
Annualized return	10.4%	10.9%	4.8%	8.4%	6.7%
Annualized standard deviation	6.09%	8.08%	10.81%	8.60%	9.88%
Sharpe ratio	1.68	1.34	0.42	0.77	0.44
Excess return*	2.21%	0.92%	0.85%	1.24%	1.51%
Beta*	1.04	0.78	0.72	0.74	0.82
Annualized alpha*	1.75%	2.91%	1.73%	2.89%	2.27%
Correlation*	0.99	0.98	0.96	0.96	0.96
Value added in dollars**	\$165M	\$203M	\$353.6M	\$1B	\$1.9B

* As compared to the total fund policy benchmark.

** MOSERS earnings above what would have been earned if assets had been invested passively.

Investment Advisors

Investment Advisors Name	Style	Portfolio Market Value
Actis	Emerging markets	\$ 49,817,673
African Development Partners International	Emerging markets	41,443,495
AIP Fund V	Corporate buyout	6,334,705
Alinda INF Fund I	Infrastructural	28,805,719
AQR Capital Management	Multi-strategy	296,381,499
AQR Capital Management	Risk parity	345,437,345
Ashmore Investment Management, Ltd.	Emerging markets debt	49,512,144
Axiom Asia Private Capital	Emerging markets	23,851,965
Axxon Brazil II	Emerging markets	10,088,692
Bayview Asset Management	Opportunistic mortgages	54,139,606
BlackRock Financial Management, Inc.	High yield bonds, loans and non-agency MBS	33,821,870
Blackstone Real Estate Advisors	Active real estate	297,883,593
Blackstone Alternative Asset Management	Fund-of-funds	404,946,189
Blakeney Onyx Emerging Markets	Emerging markets	103,799,715
Brevan Howard Capital Management	Emerging markets	70,074,904
Brevan Howard Capital Management	Global macro	89,858,072
Bridgepoint Capital Partners	Corporate buyout	54,981,834
Bridgewater Associates	Global macro	77,419,352
Bridgewater Associates	Risk parity	415,212,445
CarVal Investors	Distressed real estate debt	58,200,000
Catalyst Capital Group	Canadian distressed debt	37,901,312
Catterton Partners	Corporate buyout	56,972,769
Claren Road	Long/short - credit	110,663,922
COMAC	Global macro	46,053,009
CQS ABS Fund	Long/short - credit	91,609,310
Davidson Kempner	Event driven	94,780,135
DDJ Capital Management	Distressed debt	3,558,507
Diamondback Partners	Long/short - equity	2,252,410
DRI Capital	Intellectual property	27,010,033
Elliott Int'l	Multi-strategy	94,824,067
Eminence Capital	Long/short - equity	99,430,554
Empyrean	Event driven	52,257,880
Eton Park	Multi-strategy	47,510,993
Farallon	Multi-strategy	5,553,286
Fortress Investment Group, LLC	Opportunistic mortgages	35,554,098
Glenview	Long/short - equity	59,947,519
Global Energy Partners	Timberland	177,846,490
GMO Emerging Markets	Active growth	121,712,392
Harvest MLP Fund	Active MLP	116,954,642
HBK	Multi-strategy	92,241,892
Internal Staff	Passive MLP	46,244,523
Internal Staff	Passive TIPS	596,792,973
Internal Staff	Cash	1,077,700,000
JLL Partners	Corporate buyout	45,203,537
King Street	Credit driven	37,802,861
Linden Capital	Corporate buyout	16,582,709
MAST Credit Opps	Credit driven	74,433,174
Merit Energy	Energy - oil & gas	8,173,459
MHR Fund Management	Distressed debt	93,862,009
Millennium Technology Ventures	Direct secondaries	16,891,934
Morant Wright	International developed equity	84,645,401

Investment Advisors continued on page 75

Investment Advisors continued from page 74

Investment Advisors Name	Style	Portfolio Market Value
Nephila Triton	Reinsurance	50,158,757
New Mountain III	Corporate buyout	43,865,041
NISA Investment Advisors	Beta program/swap payable	(54,812,401)
NISA Investment Advisors	Commodities	105,187,239
NISA Investment Advisors	Credit hedge	68,785,744
Oaktree Capital Management	Opportunistic European loans	2,341,377
Oaktree Capital Management	Distressed debt	53,545,999
Oaktree Capital Management	Corporate buyout	12,487,981
Oaktree Capital Management	Real estate	6,898,533
PAAMCO - Alpha Manager	Multi-strategy - fund of funds	4,286,036
Pershing Square	Long/short - equity	34,030,182
Pharo Macro Fund	Global macro	85,755,694
Resource Management Service - Wildwood Timberlands	Timberland	121,847,125
Silchester Int'l	International developed equity	718,334,103
Silver Creek Management	Special situations - fund of funds	64,902,052
Silver Lake Partners II	Corporate buyout	15,018,777
Silver Point	Credit driven	2,023,882
SIRIS II	Corporate buyout	3,579,138
State Street Global Advisors	Index	174,246,335
Stepstone	Corporate buyout - fund-of-funds	37,121,226
Stone Harbor Investment Partners	Emerging markets debt	78,288,606
The Campbell Group Timber, LLC	Timberland	43,050,929
TPG Axon	Long/short - equity	27,519,505
TPGC Airline Credit Opportunities II	Special situations	28,396,340
Veritas	Corporate buyout	61,399,872
Viking	Long/short - equity	117,047,892
Visium	Long/short - equity	85,928,970
TCW	Energy	103,945,485
Miscellaneous (each less than \$1M)		2,353,154
		<u>\$8,082,512,187</u>

Total Fund - Top Ten Publicly Traded Separate Account Holdings

Ten Largest Holdings as of June 30, 2012*	Market Value	Percent of the Total Fund
U.S. Treasury Inflation Index Note - 0.125%, 2016	\$51,679,179	0.64%
U.S. Treasury Inflation Index Note - 0.500%, 2015	47,095,411	0.58
U.S. Treasury Inflation Index Note - 0.625%, 2021	42,695,053	0.53
U.S. Treasury Inflation Index Note - 2.625%, 2017	41,937,025	0.52
U.S. Treasury Inflation Index Note - 0.125%, 2022	40,299,952	0.50
U.S. Treasury Inflation Index Note - 1.625%, 2015	33,705,274	0.42
U.S. Treasury Inflation Index Note - 0.125%, 2023	33,534,428	0.41
U.S. Treasury Inflation Index Note - 2.375%, 2017	33,264,375	0.41
U.S. Treasury Inflation Index Note - 1.125%, 2021	32,454,665	0.40
U.S. Treasury Inflation Index Note - 1.250%, 2020	31,313,253	0.39

* For a complete list of holdings contact the Manager of Investment Policy & Communications.

Investment Manager Fees

For the Year Ended June 30, 2013

	Total Fees	Manager Fees	Paid/Accrued Performance Fees
Public equity managers			
Baillie Gifford EAFE Plus	\$ 449,816	\$ 449,816	\$ 0
Blackstone Hedged Equity Fund, LP	433,384	433,384	0
Blakeney Onyx, LP	2,126,462	2,126,462	0
Glenview Institutional Partners, LP	5,361,607	912,172	4,449,435
Grantham, Mayo, and Van Otterloo & Co.	1,341,852	1,341,852	0
Legg Mason Opportunity Trust	60,872	60,872	0
Leuthold Weeden Capital Management	95,196	95,196	0
Morant Wright Investment Management	960,137	960,137	0
Nippon Value Investors	203,209	203,209	0
Pershing Square, LP	2,453,080	515,019	1,938,061
Silchester International Investors	2,905,432	2,905,432	0
SSGA Emerging Markets	148,328	148,328	0
TPG- Axon Partners, Ltd.	1,060,867	498,815	562,052
Total public equity managers	17,600,242	10,650,694	6,949,548
Public debt managers			
Ashmore Emerging Markets Debt and Currency Fund	366,598	366,598	0
Bayview Opportunity Domestic, LP	4,662,881	722,093	3,940,788
BlackRock Financial Management Mortgage Opportunities	226,338	226,338	0
BlackRock Financial Management Bank Loans	104,939	104,939	0
Stone Harbor Investment Partners	494,616	494,616	0
Total public debt managers	5,855,372	1,914,584	3,940,788
Alternative investment managers			
Actis Emerging Markets III	693,997	693,997	0
Actis Global IV	876,780	876,780	0
African Development Partners I, LLC	575,585	575,585	0
Alinda Infrastructure Fund I, LP	553,513	553,513	0
American Industrial Partners Capital Fund V, LP	690,001	690,001	0
Axiom Asia Private Capital Fund II, LP	400,000	400,000	0
Axiom Asia Private Capital Fund III, LP	245,219	245,219	0
Axxon Brazil Private Equity Fund II B, LP	598,763	598,763	0
Bayview Opportunity Domestic, LP	402,778	402,778	0
Blackstone Real Estate Partners IV	827,281	518,610	308,671
Blackstone Real Estate Partners V	4,324,233	1,129,705	3,194,528
Blackstone Real Estate Partners VI	3,753,854	958,961	2,794,893
Blackstone Real Estate Partners VII	2,458,322	1,040,159	1,418,163
Bridgepoint Europe III A, LP	206,508	206,508	0
Bridgepoint Europe IV B, LP	548,410	548,410	0
Campbell Timber Fund II-A, LP	344,230	344,230	0
CarVaL Investors CVI Global Value Fund A, LP - real estate	577,153	577,153	0
CarVaL Investors CVI Global Value Fund A, LP - private debt	577,153	577,153	0
Catalyst Fund Limited Partnership III	1,632,424	890,342	742,082
Catalyst Fund Limited Partnership IV	673,386	572,497	100,889
Catterton Partners V, LP	122,162	122,162	0
Catterton Partners VI, LP	548,472	405,621	142,851
Catterton Partners VI, LP	156,522	156,522	0
DRI Capital - LSRC	376,520	45,046	331,474
DRI Capital - LSRC II	187,500	187,500	0
EIG (TCW) Energy Fund XIV, LP	406,070	406,070	0
EIG (TCW) Energy Fund XV, LP	569,379	569,379	0
Garnet Sky Investors Company, Ltd.	607,883	607,883	0
Gateway (TCW) Energy & Resource Holdings, LLC	1,077,726	306,867	770,859
Global Forest Partners GTI7 Institutional Investors Co., Ltd.	1,825,576	591,225	1,234,351
Harvest Fund Advisors, LLC	1,195,361	416,935	778,426

Continued on page 77

Investment Manager Fees continued from page 76

	Total Fees	Manager Fees	Paid/Accrued Performance Fees
JLL Partners Fund V, LP	870,867	206,786	664,081
JLL Partners Fund VI, LP	(118,532)	763,991	(882,523)
Linden Capital Partners II, LP	221,958	221,958	0
Merit Energy Partners F-II, LP	104,493	104,493	0
MHR Institutional Partners II A, LP	2,682,700	230,851	2,451,849
MHR Institutional Partners III, LP	8,420,077	1,273,656	7,146,421
Millennium Technology Value Partners II	495,513	424,024	71,489
New Mountain Partners III, LP	552,986	518,978	34,008
NISA Investment Advisors	692,935	111,793	581,142
OCM/GFI Power Opportunities Fund II, LP	(333,673)	24,123	(357,796)
OCM Opportunities Fund IVB, LP	55,794	0	55,794
OCM Opportunities Fund VII B, LP	6,144,370	857,934	5,286,436
OCM Opportunities Fund VIII B, LP	850,621	363,943	486,678
OCM Power Opportunities III, LP	635,015	391,021	243,994
OCM Real Estate Opportunities Fund III, LP	(6,241,667)	7,179	(6,248,846)
Parish Capital Buyout Fund I, LP	103,429	86,602	16,827
Parish Capital Buyout Fund II, LP	174,035	174,035	0
Parish Opportunities Fund II, LP	(117,945)	63,640	(181,585)
Resource Management Service - Wildwood Timberlands, LLC	629,007	629,007	0
Silver Lake Partners II, LP	(276,251)	101,552	(377,803)
SIRIS Partners II, LP	952,279	254,339	697,940
TPG Airline Credit Opportunities, LP	1,353,688	600,000	753,688
The Veritas Capital Fund III, LP	1,242,186	0	1,242,186
The Veritas Capital Fund IV, LP	3,862,839	280,233	3,582,606
Total alternative investment managers	50,989,485	23,905,712	27,083,773
Alpha pool managers			
AQR Absolute Return Institutional Fund, LP	542,286	542,286	0
AQR DELTA Sapphire Fund, LP	2,115,097	2,115,097	0
Blackstone Topaz Fund, LP	4,571,300	3,354,122	1,217,178
Brevan Howard, LP	2,822,138	1,275,677	1,546,461
Brevan Howard Emerging Market Strategies Fund, LP	2,430,370	1,333,113	1,097,257
Bridgewater Associates - Diamond Ridge Fund, LLC	2,727,039	2,727,039	0
Claren Road Credit Partners, LP	3,753,174	1,554,044	2,199,130
COMAC Global Macro Fund, LP	1,156,333	1,156,333	0
CQS ABS Feeder Fund, Ltd.	3,190,550	1,620,764	1,569,786
Davidson Kempner Institutional Partners, LP	2,754,248	877,398	1,876,850
Diamondback Partners, LP	1,139,403	1,139,403	0
Elliott International, Ltd.	3,869,008	1,312,545	2,556,463
Eminence Fund, Ltd.	3,968,761	875,150	3,093,611
Empyrean Capital Fund, LP	916,873	916,873	0
Eton Park Fund, LP	2,844,252	1,124,237	1,720,015
HBK Offshore Fund, Ltd.	2,455,963	1,335,455	1,120,508
King Street Capital, LP	1,551,292	855,380	695,912
Mast Credit Opportunities I, LP	1,370,793	1,370,793	0
Nephila Triton Fund, LP	75,664	62,793	12,871
King Street Capital, Ltd.	80,574	11,518	69,056
Pharo Macro Fund, Ltd.	4,163,147	1,692,778	2,470,369
Viking Global Equities III, Ltd.	4,654,621	1,378,079	3,276,542
Visium Balanced Fund, LP	2,745,925	1,167,578	1,578,347
Total alpha pool managers	55,898,811	29,798,455	26,100,356
Other managers			
AQR Global Risk Premium Fund (15 vol.)	1,347,681	1,347,681	0
Bridgewater All Weather Fund (12 vol.)	1,040,998	1,040,998	0
NISA Investment Advisors - Beta	1,125,261	1,125,261	0
MOSERS, Inc.	140	140	0
Total other managers	3,514,080	3,514,080	0
Grand totals	\$133,857,990	\$69,783,525	\$64,074,465

Schedule of Investment Portfolios by Asset Class

As of June 30, 2013

	Fair Value	Percentage of Investments at Fair Value
Public global equity		
Domestic equity	\$ 901,343,155	11.2%
International developed equity	801,266,642	9.9
Emerging markets equity	317,412,243	3.9
Total public global equity	2,020,022,040	25.0
Public debt		
Core fixed income	347,687,930	4.3
High yield bonds	213,879,715	2.6
TIPS	368,581,666	4.6
Market neutral	207,519,077	2.6
Total public debt	1,137,668,388	14.1
Alternative investments		
Real assets	1,055,076,830	13.0
Private investments	893,820,501	11.1
Total alternative investments	1,948,897,331	24.1
Beta balanced	2,971,055,335	36.7
Cash and other miscellaneous investments	4,869,093	0.1
<i>Grand total</i>	<i>\$ 8,082,512,187</i>	<i>100.0%</i>
<i>Reconciliation to Statement of Fiduciary Net Position</i>		
Total portfolio value	\$ 8,082,512,187	
STIF	(1,192,337,766)	
Uninvested cash	(10,314,732)	
Interest and dividend receivable	53,075,570	
Variation margin	(2,630,161)	
AR securities sold	(33,850,496)	
AP securities purchased	11,479,680	
Fees payable	12,909,034	
Securities lending liability	2,330,804	
Swaps	(782,496)	
Foreign currency differences	(57,486)	
Miscellaneous difference	3	
Investments per <i>Statement of Fiduciary Net Position</i>	<i>\$ 6,922,334,141</i>	

Schedule of Investment Results*

1-, 3-, 5-, 10-, 15- and 20-Year Periods

	1 Year	3 Year	5 Year	10 Year	15 Year	20 Year
Total Fund						
MOSERS	10.4%	10.9%	4.8%	8.4%	6.7%	8.4%
Composite total return benchmark	8.2%	10.0%	3.9%	7.2%	5.2%	7.5%
Public equity						
MOSERS	21.8%	14.9%	5.5%	9.9%	6.5%	9.2%
Public equity composite benchmark	16.6%	12.4%	2.3%	7.1%	4.1%	7.3%
Public debt						
MOSERS	3.3%	6.7%	5.8%	5.9%	7.0%	7.0%
Public debt composite benchmark	0.4%	5.2%	5.9%	5.9%	7.0%	7.0%
Alternatives						
MOSERS	13.8%	13.3%	4.7%	9.2%	N/A	N/A
Alternatives composite benchmark	13.8%	14.5%	5.2%	8.5%	N/A	N/A
Beta balanced**						
MOSERS	N/A	N/A	N/A	N/A	N/A	N/A
Beta Balanced Composite Benchmark	N/A	N/A	N/A	N/A	N/A	N/A

* Time weighted rates of return on market values adjusted for cash flows.

** Beta balanced inception date was September 1, 2012

Total Fund - As of 6/30/13, the total fund policy benchmark was comprised of the following components: 24.4% total public equity policy benchmark, 16.2% total public debt policy benchmark, 22.7% total alternative investments policy benchmark, and 36.7% total beta balanced policy benchmark. The individual asset class benchmarks, as listed below are used to generate the total fund policy benchmark.

- **Public Equity** - As of 6/30/13, the policy benchmark was based on the capitalization of the MSCI ACWI benchmark, which at that date was 40.2% MSCI World Ex U.S. Net, 48.1% MSCI US Net, and 11.7% MSCI Emerging Markets Net. Similar benchmarks were used in previous years.
- **Public Debt** - As of 6/30/13, the public debt policy benchmark was comprised of 33.3% Barclays Aggregate, 33.3% Barclays U.S. TIPS, 16.7% Barclays High Yield, and 16.7% T-Bills + 4%. Similar benchmarks were used in previous years.
- **Alternative Investments** - As of 6/30/13, the alternative investments policy benchmark was comprised of the following components: 40% S&P 500 + 3%, 24% Dow Jones U.S. Select REIT Index, 24% NCREIF Timber, and 12% Goldman Sachs Commodity Index. This program did not begin until July 2002. Similar benchmarks were used in previous years.
- **Beta Balanced** - As of 6/30/13, the total beta balanced policy benchmark was comprised of the following components: 24% MSCI ACWI, 46% Barclays Long Treasuries, 21% Goldman Sachs Commodity, 80% Barclays US TIPS 1-10 YR, and 39% AQR Delta. This program did not begin until September 2012.

PUBLIC EQUITY

Asset Class Summary

As of June 30, 2013, the public equity portfolio had a market value of \$2.0 billion, representing 25.0% of the total fund. Performance for the fiscal year was 21.8%, net of fees and expenses.

Highlights

There were some strategic changes in the makeup of the public equity portion of the portfolio; five managers were removed and some allocations were altered. Here are the highlights:

- Three domestic equity managers and two international developed managers were terminated due to a shift in asset allocation.
- An overweight to large multi-national U.S. companies concentrated in technology, health care, consumer staples and energy sectors was maintained.
- Within emerging equity, significant exposure to frontier markets was maintained.
- Within international developed, the overweight to Japanese equity was removed during this fiscal year.

Portfolio Structure

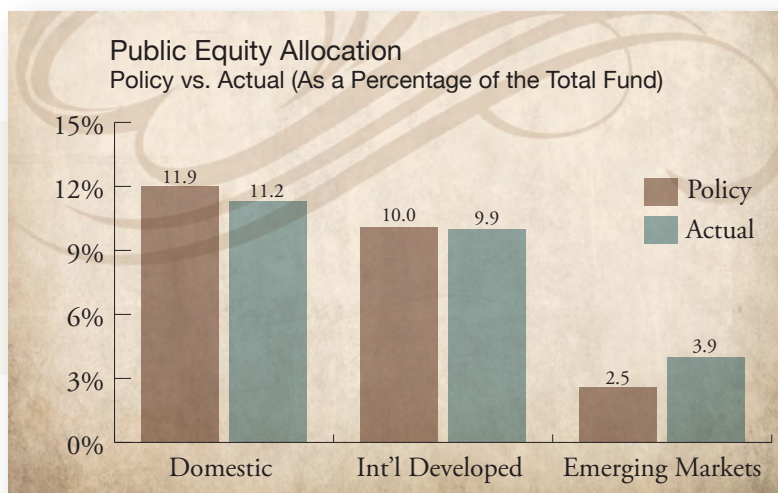
The public equity portfolio has a target allocation of 24.4% of the total fund. This portfolio is considered global equity and therefore benchmarked against the MSCI All Country World Index (ACWI).

As of June 30, 2013, the portfolio includes domestic equity, international developed equity, and emerging markets equity. The policy allocations to each component are not static weights. The weights float based upon capitalization of the MSCI ACWI benchmark. As part of the implementation plan, hedged equity managers are utilized as a risk reducing tool. The bar chart above illustrates the actual allocation relative to the board's policy benchmark. Differences reflect the CIO's strategic decisions to overweight or underweight as of June 30, 2013.

Market Overview

The MSCI ACWI returned 16.6% for the fiscal year. Domestic markets returned 19.8% and international developed markets returned 17.1%. The housing markets in the U.S. have rebounded nicely to help push the markets higher. Companies continue to report strong profits and investors have purchased stocks in light of the low return from cash and other fixed income choices. Aggregate economic conditions in Euroland remain weak, however, conditions have started to improve resulting in higher equity prices. Japan also announced new programs to stimulate the economy and this pushed equity markets higher.

The emerging markets were a disappointment during the fiscal year. The MSCI Emerging Markets index was up 2.9% for the year. The slow world-wide growth and falling commodity prices have kept the emerging markets from recovering. The world is watching China to see if they will be able to return to a stronger economy without a credit bubble. The developed world equity markets had a nice year but investors are looking at several years of growing profits without growth in the overall economies and wonder how long this can continue. While the markets have rebounded nicely off of 2008 lows, the real economies have yet to show growth levels typical in recovery periods.



The U.S. economy did not stop growing as predicted when federal sequestration took effect. However, many issues remain that are seen as a potential drag on the economy including spending cuts, tax increases and mandated healthcare. Although interest rates are rising in some areas, they are still at historically low levels and supportive of the economy and equity markets.

Performance

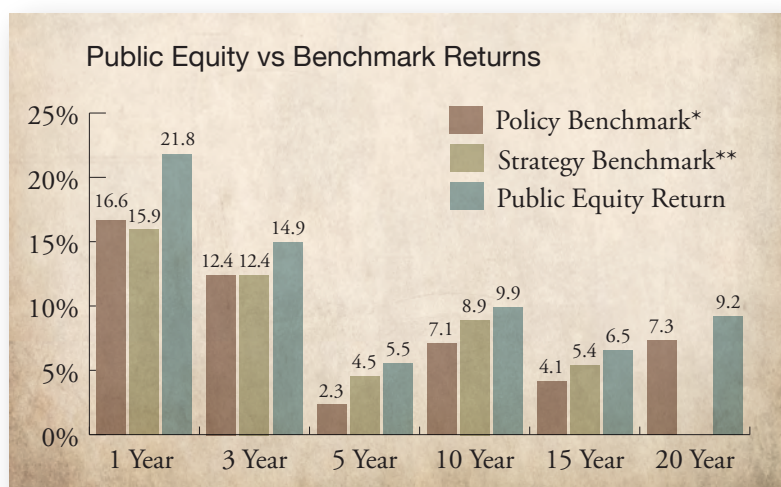
The public equity portfolio returned 21.8% for the fiscal year, exceeding the policy benchmark return of 16.6% and the strategy benchmark return of 15.9%, as illustrated in the bar chart to the right.

The outperformance of the equity portfolio, as compared to the policy benchmark, was due to all three sub-asset classes outperforming their respective benchmarks. The significant outperformance was remarkable in such a strong year for the markets. Often the MOSERS equity portfolio will underperform in periods when the market is strong due to the lower beta and defensive nature of the portfolio allocation.

The actual public equity return exceeded the strategy benchmark return by 5.9%. This year proved to be a success for the implementation decisions (manager selection) made by staff in all three sectors of the portfolio. Additionally, the policy benchmark outperformed the strategy benchmark by 0.7%. This was a result of staffs' strategic decisions to overweight Japanese equities, implement a Euro hedge, and to overweight large capitalization and high quality U.S. equity.

In the developed international markets, Switzerland, Greece and Finland were the best performing markets at 26.4%, 25.5% and 24.9%, respectively. Italy, Norway and Australia were the worst performing at 3.6%, 4.6% and 5.8%, respectively. All of these returns are U.S. dollar based.

In emerging markets, MOSERS' exposure to frontier markets benefited our equity portfolio performance, as the frontier markets were up 23% while emerging markets in total were up only 2.8%. In emerging markets, the country returns varied widely. Peru, Czech Republic and Brazil were the worst performers at -24.8%, -20.7%, and -14.1%, respectively. The Philippines, Thailand and Indonesia were the strongest performers at 23.9%, 15.1% and 12.4%, respectively.



* As of 6/30/13, the public equity policy benchmark was based on the capitalization of the MSCI ACWI benchmark, which at that date was 40.2% MSCI World Ex US Net, 48.1% MSCI US Net, and 11.7% MSCI Emerging Markets Net.

** As of 6/30/13, the public equity strategy benchmark was comprised of the following components: 43.2% domestic consisting of S&P 500, S&P 100, MSCI U.S. Net, and hedge equity strategy benchmark; 40.3% international developed consisting of MSCI World Ex U.S. Net, MSCI EAFE, MSCI EAFE Ex Japan and TOPIXUSD Index; 16.5% emerging markets consisting of MSCI EMF Net.

Additional Portfolio Information

The tables, as titled below, show the brokerage activity, and the soft dollar expenditures that occurred within the public equity portfolio in FY13.

Public Equity - Brokerage Activity

Brokerage Firm	Shares Traded	\$ Volume of Trades	Commissions	
			\$ Amount	Value Per Share
Morgan Stanley Securities	7,329,125	\$114,264,688	\$ 35,203	\$0.00
Investment Technology Group	6,129,190	77,789,598	61,292	0.01
ITG, Inc.	5,634,851	120,219,334	56,349	0.01
Barclays Capital	2,167,818	90,553,948	15,959	0.01
Liquidnet	2,104,330	45,071,373	21,115	0.01
JP Morgan Securities	1,022,336	41,493,050	9,232	0.01
Morgan Stanley & Co.	912,670	18,278,703	6,799	0.01
Credit Lyonnais Securities	582,000	915,960	1,838	0.00
Goldman Sachs & Co.	480,400	15,623,800	6,127	0.01
Weeden & Co.	381,043	10,921,658	7,621	0.02
UBS Equities	281,086	5,283,279	2,340	0.01
William Blair & Co.	280,200	2,095,183	11,208	0.04
Merrill Lynch	206,308	2,205,770	1,120	0.01
Merrill Lynch Pierce Fenner	201,573	2,445,153	1,526	0.01
Deutsche Bank	168,877	963,473	1,559	0.01
Equita SIM	134,240	660,977	660	0.00
Santander Central	120,197	645,980	645	0.01
Royal Bank of Canada	108,216	1,318,983	1,319	0.01
Jefferies & Co.	78,300	486,095	3,132	0.04
Keefe Bruyette and Woods	68,050	534,414	2,722	0.04
Others (50, each contributing less than 1%)	1,093,127	19,312,542	33,969	0.03
Total	29,483,937	\$571,083,961	\$281,735	\$0.01

Public Equity - Soft Dollar Expenditures*

Types of Service Acquired	Commissions Used	Percentage of Total
Research services	\$65,111	100%
Total	\$65,111	100%

* These expendable excess commissions are permitted under current Securities Exchange Commission (SEC) guidelines and represent less than 20.2% of MOSERS' agency commissions.

DOMESTIC EQUITY

Market Value

The domestic equity allocation was \$901 million, or 11.2% of the total fund as of June 30, 2013.

Summary of Portfolio

Domestic equity exposure is achieved through broadly diversified portfolios representing a variety of styles, sectors, market capitalizations, and an allocation to the beta/alpha program (see page 101 for further details). This portfolio is expected to contribute significantly to the fund's achievement of a long-term real return in excess of the 5.5% objective set by the board. It is expected that this portfolio will perform well in periods of falling inflation and rising growth. MOSERS' allocation to domestic equity of 11.2% was underweight to the policy MSCI ACWI weightings to domestic equity of 11.9% at June 30, 2013.

Additional Portfolio Information

MOSERS had contracts with three external investment advisors who manage assets that comprise 13.5% of the domestic equity portfolio. The remaining 86.5% of the portfolio is in the beta/alpha program described on page 101. Three domestic equity managers were terminated in FY13. Management fees can be found on pages 76-77.

The table below shows the statistical performance for the domestic equity portfolio as of June 30, 2013.

Domestic Equity - Statistical Performance				
Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	27.1%	20.5%	7.8%	9.0%
Annualized standard deviation	8.58%	13.22%	16.80%	14.09%
Sharpe ratio	3.15	1.54	0.45	0.52
Excess return*	7.30%	2.70%	1.53%	1.87%
Beta*	1.25	0.95	0.88	0.93
Annualized alpha*	1.53%	3.09%	2.04%	2.24%
Correlation*	0.99	0.99	0.97	0.97

** As compared to the domestic equity policy benchmark.*

INTERNATIONAL DEVELOPED EQUITY

Market Value

As of June 30, 2013, the international developed equity allocation was \$801 million, or 9.9% of the total fund.

Summary of Portfolio

The international developed equity portfolio consists of publicly traded shares of corporations based in non-U.S. developed countries. Equity exposure is achieved through broadly diversified portfolios representing a variety of styles, sectors, market capitalizations, and an allocation to the beta/alpha program (see page 101 for further details). This portfolio is expected to contribute significantly to the fund's achievement of a long-term real return in excess of the 5.5% objective set by the board. It is expected that this portfolio will perform well in periods of falling inflation and rising growth and offer income potential through dividend payments. As of June 30, 2013, MOSERS' allocation of 9.9% was underweight to the policy MSCI ACWI weighting of 10.0% for international developed countries.

Additional Portfolio Information

MOSERS had contracts with two external investment advisors who manage assets that comprise 73.3% of the international developed equity portfolio. The remaining 26.7% of the portfolio is in the beta/alpha program described on page 101. Two managers were terminated in the international developed equity portfolio in FY13. Management fees can be found on pages 76-77.

The table below shows the statistical performance for the international developed equity portfolio as of June 30, 2013.

International Developed Equity - Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	23.6%	12.8%	6.2%	11.5%
Annualized standard deviation	9.76%	15.46%	19.55%	15.57%
Sharpe ratio	2.40	0.82	0.23	0.58
Excess return*	6.52%	3.39%	5.68%	3.02%
Beta*	1.05	0.85	0.84	0.84
Annualized alpha*	4.77%	4.31%	5.11%	3.81%
Correlation*	0.98	0.98	0.98	0.98

* As compared to the international developed equity policy benchmark.

EMERGING MARKET

Market Value

As of June 30, 2013, the emerging market equity portfolio was \$317 million, or 3.9% of the total fund.

Summary of Portfolio

The emerging market equity allows for participation in publicly traded shares of corporations based in the emerging economies across the globe. This equity exposure is achieved through broadly diversified portfolios representing a variety of styles, sectors, market capitalizations, and an allocation to the beta/alpha program (see page 101 for further details). The emerging markets equity portfolio is expected to contribute significantly to the fund's achievement of a long-term real return in excess of the 5.5% objective set by the board. As of June 30, 2013, MOSERS' allocation of 3.9% was overweight to the policy MSCI ACWI weighting of 2.5% for emerging market countries. This portfolio provides diversification associated with holding non-dollar assets and offers some of the best fundamental valuations available from equity markets around the globe.

Additional Portfolio Information

MOSERS had contracts with three external investment advisors who manage assets that comprise 100% of the emerging market equity portfolio. There were no managers hired and or terminated in the emerging markets portfolio in FY13. Management fees can be found on pages 76-77.

The table below shows statistical performance for the emerging markets equity portfolio as of June 30, 2013.

Emerging Market Equity - Statistical Performance				
Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	6.7%	4.5%	0.4%	15.7%
Annualized standard deviation	10.10%	17.96%	25.31%	20.61%
Sharpe ratio	0.65	0.25	0.00	0.67
Excess return*	3.84%	1.16%	0.82%	1.90%
Beta*	0.86	0.85	0.89	0.83
Annualized alpha*	4.02%	1.41%	0.46%	3.59%
Correlation*	0.98	0.99	0.98	0.97
* As compared to the emerging market equity policy benchmark.				

PUBLIC DEBT

Asset Class Summary

As of June 30, 2013, the public debt allocation had a market value of \$1.1 billion, representing 14.1% of the total fund. Performance for the fiscal year was 3.3%, net of fees and expenses.

Highlights

There were some modest strategic changes made to the public debt portfolio during the fiscal year:

- The substantial overweight to treasuries initiated in 2007 was maintained, with the offsetting underweight coming primarily from investment grade corporate securities and government guaranteed mortgages.
- The emerging market debt exposure added in 2011 was increased as a percent of assets in the core fixed income and high yield portfolios, adding to portfolio yield and non-dollar currency exposure.
- The bank loan exposure within high yield was reduced throughout the year as credit spreads were at less compelling levels.
- Within high yield, significant exposure continued to be maintained in security classes carrying attributes of high yield that are not represented within the benchmark, namely mortgage securities/whole loans. These non-index securities are generally believed to carry more protection in downside scenarios and, in some cases, offer inflation protection in the form of floating rate coupons.

Portfolio Structure

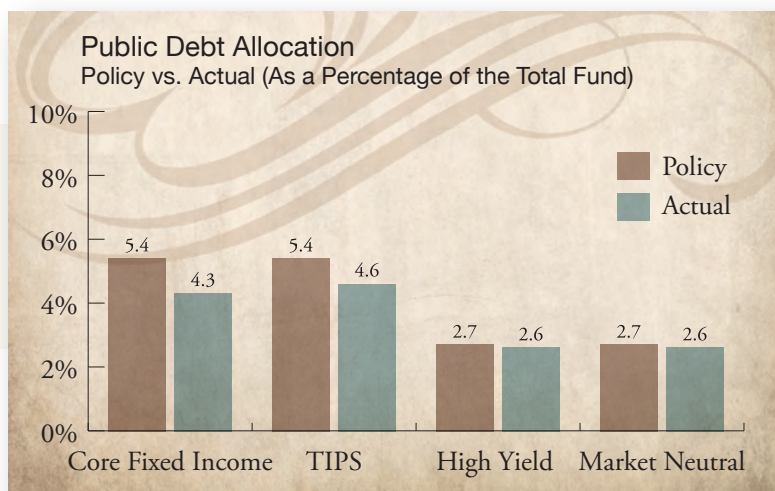
At June 30, 2013, the public debt portfolio has a target allocation of 16.2% of the total fund. This portfolio is comprised of four sub-asset classes which include core fixed income, high yield bonds, treasury inflation protected securities (TIPS) and market neutral. The bar chart above illustrates the actual sub-asset allocations relative to the board's policy allocation for each of these sub-asset classes. Differences reflect the CIO's strategic decisions to overweight or underweight sub-asset classes as of fiscal year end.

Market Overview

FY13 was a good year for financial assets, with the exception of interest rate sensitive assets, as the economy continued its slow growth recovery. At the end of FY13, the federal funds target rate was zero to 0.25% and the Federal Reserve Board (Fed) stated that the economy "expanded at a modest pace during the first half of the year" and was expected to "pick up from its recent pace." The Fed plans to monitor economic activity, inflation expectations and the labor market and adjust Fed security purchases to "maintain appropriate policy accommodation."

The Fed continued to purchase agency mortgage-backed securities and longer-term Treasury securities and continued reinvesting principal payments from its holdings. According to the Fed, these policies are intended to "maintain downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative." The Fed has maintained its zero interest rate policy since December 2008.

Long treasury prices fell substantially during FY13 as long-term interest rates increased sharply from the beginning of the period from 2.75% to 3.50% at the end of the fiscal year. The majority of the increase in rates came in the last two months of the period with over a 0.6% increase in long rates. Short-term rates remained low as the Fed maintained the federal funds rate constant, and market participants continued to show a strong interest in the short-end of the yield curve, seeking liquidity and safety. The treasury curve steepened during the fiscal year, increasing nearly 80 basis points in the 2-year versus 10-year spread.



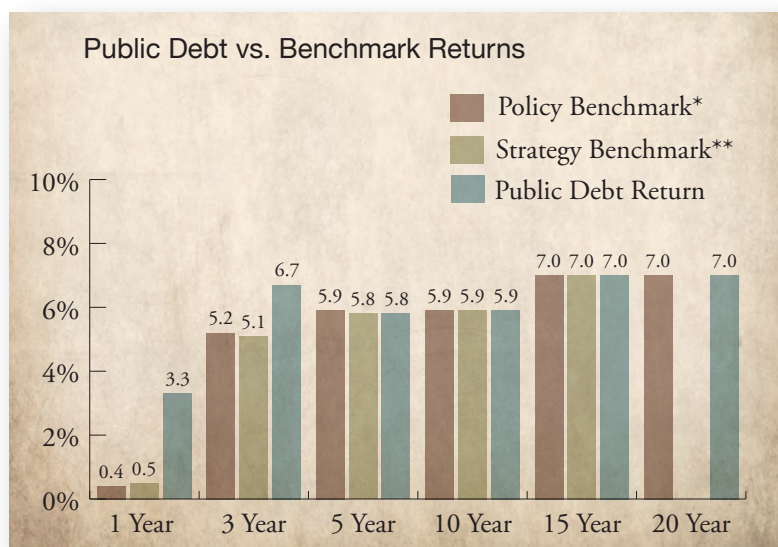
The broad debt market as represented by the Barclays Capital Aggregate Index experienced a return of -0.7% during the fiscal year. The three major components of the Aggregate Index, in order of their size contributions to the index, are treasuries, the securitized segment (largely mortgage-backed securities), and corporates. Fiscal year returns for these broad market components were -1.6%, -1.1% and 1.4%, respectively. Apart from the Aggregate Index there are three other important segments of the bond market, TIPS, high yield and external emerging markets debt (as distinguished from local currency denominated or internal debt). Fiscal year returns for these bond market segments were -4.8%, 9.5% and 1.1%. As the fiscal year progressed, yield premiums for credit risk decreased commensurate with the general economic conditions and decreased risk to the economic environment. The degree of credit improvement is best measured by investment grade corporate spreads, which tightened by 46 basis points and with high yield spreads having tightened by 119 basis points over the fiscal year.

The impact on the economy from the sharp rise in interest rates the last two months of the fiscal year may have a slowing effect on the economy depending on its persistence and market expectations. Investors have become accustomed to the Fed accommodation; however the Fed is trying to position itself to reduce the accommodation over time. How successful the Fed is at communicating its intentions and managing market expectations will likely be a dominate theme in asset prices and market volatility in the coming quarters.

Performance

The public debt portfolio returned 3.3% for the fiscal year, significantly outperforming the policy benchmark return of 0.4% and the strategy benchmark return of 0.5%. The bar chart to the right illustrates performance over longer periods of time.

During the fiscal year, the outperformance relative to the policy benchmark was attributable to the implementations primarily within high yield and core fixed income. The portfolio is currently positioned with less interest rate risk than is the policy benchmark, a factor that may enable better long-term performance relative to the benchmark as interest rates are at historical lows and likely will rise in the event of a more sustained economic recovery, although imminent recovery may not be attainable, in large part, to the headwinds of austerity in overly indebted developed countries and its collateral impact upon the global economy and banking system.



* As of 6/30/13, the public debt policy benchmark was comprised of the following components: 33.3% Barclays Aggregate Index; 33.3% Barclays U.S. TIPS Index; 16.7% Barclays High Yield Index; and 16.7% T-Bills + 4%.

** As of 6/30/13, the public debt strategy benchmark was comprised of the following components: 36.9% core bonds consisting of various components of debt indices; 30.1% Barclays U.S. TIPS Index; 16.0% high yield bonds consisting of various components of debt indices and actual portfolio returns; and 17.0% market neutral consisting of T-Bills + 4%.

Additional Portfolio Information

The table below shows the the brokerage activity that occurred within the public debt portfolio in FY13.

Brokerage Activity

Broker/Dealer Firm	Par Amount Traded	Market Value Traded	Percent of Total Trading Volume by Market Value
Barclays	\$207,495,134	\$251,505,688	26.3%
Bank of Nova Scotia	210,168,260	240,978,929	25.2
Citigroup	131,170,271	153,073,424	16.0
Merrill Lynch	89,100,152	86,588,709	9.0
JP Morgan	46,909,014	55,506,324	5.8
Deutsche Bank	39,300,403	45,826,062	4.8
Goldman Sachs	19,970,892	21,823,313	2.3
Credit Suisse	15,870,075	17,139,197	1.8
HSBC	9,595,095	10,449,022	1.1
UBS	7,999,354	10,373,424	1.1
Morgan Stanley	10,214,982	9,624,584	1.0
Other (Includes 31, each contributing less than 1%)	52,416,516	53,632,016	5.6
Totals	\$840,210,148	\$956,520,692	100.0%

CORE FIXED INCOME

Market Value

The core fixed income allocation was \$347.7 million as of fiscal year end, or 4.3% of the total fund.

Summary of Portfolio

The core fixed income sub-asset class gives the total fund exposure to high quality fixed income instruments which, in turn, provides stable cash flows and excellent liquidity to the portfolio. Types of fixed income securities that may be held within this portfolio include U.S. Treasuries, mortgage-backed securities, asset-backed securities, agency securities, investment-grade corporate securities and international investment grade securities. Core fixed income is also one portfolio within the public debt asset class that can be efficiently implemented synthetically due to the wide availability of futures and swaps and their acceptance as mainstream instruments of portfolio management. Synthetic implementation of core exposure has been widely used since the addition of the beta/alpha program in FY05. Beta/alpha within the core fixed income portfolio is expected to be an efficient means of achieving superior risk adjusted returns over an entire economic cycle. Refer to the beta/alpha on page 101 for a more complete description of the program and its rationale. The core fixed income portfolio provides meaningful diversification to the fund in a variety of different economic scenarios. Core fixed income performs well, but would typically lag equities in periods of good economic growth and falling inflation. One should also expect adequate performance from this portfolio in periods of falling growth and stable inflation. As of June 30, 2013, MOSERS' allocation was below the 5.4% policy target allocation to core fixed income.

Additional Portfolio Information

MOSERS had one contract with an external investment advisor for the management of a separate fixed income portfolio of investment grade emerging markets debt. The core fixed income portfolio also participates in the beta/alpha program. In the program, beta and alpha are completely separated such that the beta exposure is gained through synthetic replication of the core components and the alpha is gained through the alpha pool managers. Management fees can be found on pages 76-77.

The table below shows statistical performance for the core fixed income portfolio as of June 30, 2013.

Core Fixed Income - Statistical Performance				
Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	3.8%	7.7%	7.5%	6.0%
Annualized standard deviation	4.28%	3.82%	5.75%	4.76%
Sharpe ratio	0.86	1.97	1.25	0.87
Excess return*	4.48%	4.15%	2.28%	1.43%
Beta*	1.22	1.12	1.26	1.09
Annualized alpha*	4.59%	3.58%	0.90%	1.00%
Correlation*	0.91	0.83	0.82	0.84

**As compared to the core fixed income policy benchmark.*

HIGH YIELD BONDS

Market Value

The high yield bond allocation was \$213.9 million as of fiscal year end, or 2.6% of the total fund.

Summary of Portfolio

The high yield bond portfolio invests in debt securities whose credit ratings are below investment grade quality. Relative to the core fixed income portfolio, this sub-asset class provides superior coupon cash flow, as well as some diversification benefit due to a reduced sensitivity to changes in interest rates. MOSERS views this allocation as one that is likely to be variable and very much dependent upon the particular stage of the economic cycle being experienced at the time of the allocation decision. As of fiscal year end, MOSERS was slightly under the 2.7% policy target allocation to high yield bonds.

Additional Portfolio Information

MOSERS had contracts with six external investment advisors for the management of the high yield bond portfolio. Management fees can be found on pages 76-77.

The table below shows statistical performance for the high yield bond portfolio as of June 30, 2013.

High Yield Bonds - Statistical Performance				
Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	14.8%	10.7%	8.0%	6.9%
Annualized standard deviation	4.93%	4.73%	10.84%	8.52%
Sharpe ratio	2.99	2.24	0.72	0.60
Excess return*	5.35%	(0.04)%	(2.88)%	(1.98)%
Beta*	1.05	0.60	0.68	0.69
Annualized alpha*	4.38%	4.07%	0.61%	0.81%
Correlation*	0.93	0.87	0.87	0.85
* As compared to the high yield bond policy benchmark.				

TREASURY INFLATION PROTECTED SECURITIES (TIPS)

Market Value

The TIPS allocation was \$368.6 million, or 4.6% of the total fund as of fiscal year end.

Summary of Portfolio

TIPS are fixed income securities issued and guaranteed by the U.S. government. The yield on these securities is specifically tied to inflation, as measured by the U.S. consumer price index, plus a predetermined yield in relation to inflation (real yield). The TIPS allocation provides an excellent match relative to the system's liabilities in terms of its ability to provide inflation protection. As of June 30, 2013, MOSERS' allocation was below the 5.4% policy target allocation to TIPS.

Additional Portfolio Information

The table below shows statistical performance for the TIPS portfolio as of June 30, 2013.

TIPS - Statistical Performance				
Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	(4.8)%	4.5%	4.5%	5.6%
Annualized standard deviation	6.17%	5.56%	7.62%	7.30%
Sharpe ratio	0.80	0.79	0.55	0.54
Excess return*	(0.05)%	(0.14)%	(0.05)%	0.09%
Beta*	0.98	0.99	1.00	1.00
Annualized alpha*	(0.17)%	(0.11)%	0.04%	0.07%
Correlation*	1.00	1.00	1.00	1.00
* As compared to the TIPS policy benchmark.				

MARKET NEUTRAL

Market Value

As of fiscal year end, the market neutral allocation was \$207.5 million, or 2.6% of the total fund.

Summary of Portfolio

The market neutral portfolio consists of a variety of managers who utilize skill-based investment strategies, which allow them to take advantage of periodic inefficiencies that may exist within the market. The expectation for this sub-asset class is to produce relatively consistent absolute returns in various economic environments. More directly, it is expected that this portfolio will generate returns of 4% in excess of returns on 90-day Treasury bills with similar volatility to what is expected from the core fixed income portfolio over long periods of time. Market neutral investments also provide diversification and downside protection to the portfolio. MOSERS utilizes its beta/alpha program described on page 101 to gain exposure to this sub-asset class. This allows MOSERS to invest in an extremely diversified pool comprised of a variety of different types of strategies that provide additional risk protection and alpha that has minimal exposure to both the stock and the bond markets. As of fiscal year end, MOSERS was slightly below the 2.7% policy target allocation to market neutral.

Additional Portfolio Information

MOSERS' market neutral exposure is captured through the managers comprising the alpha program, which is detailed on page 101.

The table below shows statistical performance for the market neutral portfolio as of June 30, 2013.

Market Neutral - Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception (Dec. 2002)
Annualized return	6.9%	5.0%	2.8%	4.4%
Annualized standard deviation	1.96%	2.21%	4.67%	3.78%
Sharpe ratio	3.45	2.22	0.54	0.69
Excess return*	2.84%	0.94%	(1.42)%	(1.19)%
Beta as compared to S&P 500	0.20	0.09	0.15	0.14
Beta as compared to Barclays Aggregate	0.20	(0.02)	0.24	0.05

* As compared to the market neutral policy benchmark.

ALTERNATIVE INVESTMENTS

Asset Class Summary

As of June 30, 2013, the alternative investments portfolio had a market value of approximately \$2.0 billion, which accounted for 24.1% of the total fund. Performance for the fiscal year was 13.8%, net of fees and expenses.

Highlights

The 2013 fiscal year was an active and productive time for the portfolio. Below are a few highlights from this diverse set of assets:

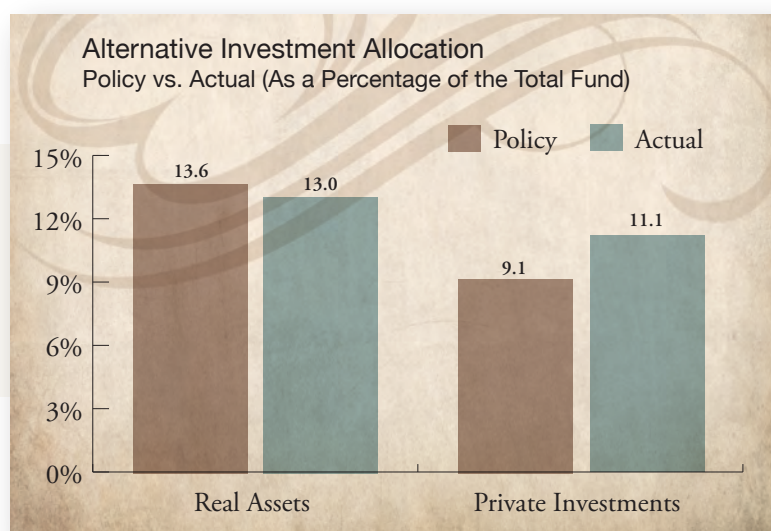
- The alternative investments portfolio invests in a broad range of assets located around the globe. The recent fiscal year was highly productive as the overall return was 13.8%.
- Over the last decade, the alternative investments portfolio achieved an annualized rate of return of 9.2%, outperforming its policy benchmark, which returned 8.5%.
- MOSERS continues to commit capital to high quality managers with compelling strategies. This fiscal year, three existing managers and one new manager received capital commitments. Both sub-asset classes: real assets and private investments, participated in the capital allocation.

Portfolio Structure

The alternative investments portfolio is targeted to comprise 22.7% of the total fund. This portfolio consists of two sub-asset classes: real assets and private investments. The real assets portfolio has a policy target allocation of 13.6%, and is further divided into three segments: commodities, timber and real estate. The private investments sub-asset class has a target allocation of 9.1%, and is focused in two areas: private equity and private debt.

At June 30, 2013, the alternative investments portfolio accounted for 24.1% of the total fund, somewhat above the target allocation. The overweight relative to the target allocation resided in the private investments portfolio, which had an actual weight of 11.1% versus a target of 9.1%. The real assets allocation had a weight of 13.0%, a bit below its 13.6% target. The bar chart above illustrates the actual allocations relative to the board's policy allocation.

The alternative investments portfolio covers a broad range of assets located in a number of regions around the world. Each asset type has its own set of expected return and risk characteristics. These characteristics are combined in a portfolio that is designed to complement the total fund, both in terms of return and diversification. The table below shows the five portfolio components and their correlation to each other.



Alternative Investments Correlation Table - 5 Year Period

Sub-Asset Class	Real Estate	Commodities	Timber	Private Equity	Private Debt
Real estate	1.00				
Commodities	0.39	1.00			
Timber	0.02	(0.09)	1.00		
Private equity	0.58	0.41	0.24	1.00	
Private debt	0.44	0.63	0.05	0.53	1.00

Market Overview

The alternative investments portfolio contains a variety of asset types which are expected to perform quite differently from an investment standpoint. The following narrative provides a high level description of each market as well as some return data on how each performed during the past year.

Commodities, in general, refer to a group of tangible assets that are used as inputs to produce an end product. MOSERS uses an index that contains more than 20 individual commodities, each with its own distinct market. This broad set of commodities can be grouped into five categories: agriculture, livestock, energy, industrial metals and precious metals. While the returns for the commodities in each group tend to move together, each individual commodity possesses its own set of supply and demand characteristics, which can lead to returns that vary significantly from one another.

The Standard & Poor's GSCI (S&P GSCI) is one of the major indexes used to track the performance of commodities. This index contains 24 individual commodities in five diverse sectors. The S&P GSCI assigns each commodity a weight based on world production statistics in an effort to reflect the relative significance of each commodity in the world economy. Given this methodology, the index has a 69% allocation to the energy sector and is represented by six of the 24 commodities. Over the fiscal year, the S&P GSCI returned 2.0%, on a total return basis. During this period, the returns of the sectors varied greatly. The precious metals component experienced the largest loss over the year, declining 25.1%. The best performing sector, and the driver of the positive return for the overall index, was energy which increased by 8.2%. As mentioned earlier, returns within a sector can also vary significantly. For example, the commodities within the agriculture sector had the widest range of returns: cotton was up almost 15%, while coffee fell by over 35%.

Real estate is another asset type with a great deal of differentiation. Properties vary by geography, type, stage of development, use of leverage and whether or not it is publicly traded. The institutional real estate market, a sub-set of the real estate universe, contains a variety of property types: office, industrial, retail, multi-family and hotel. A well-known indicator of real estate performance is the Dow Jones U.S. Select REIT Index, which tracks the performance of publicly traded domestic real estate investment trusts (REITs). The index contains a number of individual REITs that were formed to invest in large institutional quality properties within a specific property-type. For year ended June 30, 2013, the Dow Jones REIT Index returned 7.7%.

The final component within real assets is timber. Timber plays an interesting role in a portfolio since it possesses a number of characteristics that differentiate it from other assets. Timber, given its extended growth cycle, has a long term investment horizon. Once mature, timberland has the potential to generate significant cash flows over time. With proper management, these cash flows can be timed to help meet the liquidity needs of the investor. As an example, managers of mature timberlands can plan harvests in order to generate a targeted amount of cash. Additionally, managers can alter harvest schedules to take advantage of strong markets or to avoid weak markets. Another benefit, in the event that a harvest is postponed, is that the tree remains on the stump where it continues to grow and add volume. The NCREIF Timberland Index, which is maintained by The National Council of Real Estate Investment Fiduciaries, is used to measure the performance of private timberlands in a number of regions within the U.S. Over the most recent fiscal year the index returned 9.4%, which was the highest among the benchmarks used to measure performance of the components within the real assets portfolio.

Private equity and private debt are the two components included in the private investments sub-asset class. Benchmarking this sub-asset class has always been a challenge. In order for a benchmark to be meaningful it should satisfy a number of criteria. A quality benchmark should be: identifiable in advance, investable, able to be calculated frequently and consistent with the manager's investment style. When dealing with assets in private markets these criteria are not met. The lack of an appropriate benchmark leads investors to use a variety of other methods, despite several shortfalls. One common method is to add a risk premium to an index of publicly traded equities, such as the S&P 500 Index. The rationale behind this approach is that an investor in private securities should expect to receive a premium above the return provided by the public markets. This incremental return is expected to compensate investors for the added risk and illiquidity associated with private investments. For the fiscal year, the private investments benchmark, the S&P 500 Index plus a 3% premium, returned 23.6%.

The alternative investments portfolio is comprised of a number of strategies. The performance of this portfolio is discussed in the next section.

Performance

The alternative investments portfolio returned 13.8% for the fiscal year, which matched the policy benchmark return. The portfolio trailed the strategy benchmark return of 16.7% over the same time period.

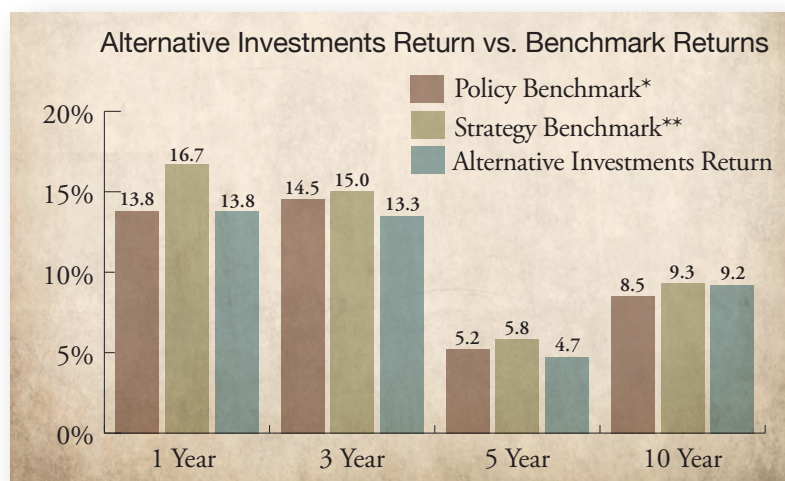
The performance of the alternative investments portfolio reflects the blended return of the real assets (real estate, timber and commodities) and private investments (private equity and private debt) portfolios. For the fiscal year, the real assets portfolio returned 13.6%, while the private investments portfolio returned 13.9%. The 1-year return of the five components ranged from 21.8% to 1.2%. The 1-year result for each component falls within the expected range of outcomes.

Results for the alternative investments portfolio and its benchmarks, for the latest 1-, 3-, 5- and 10-year periods, are illustrated in the bar chart to the right.

The policy benchmark return for the alternative investments portfolio is a weighted average of the allocation mix and the policy benchmark return of each component. In order to determine the amount of value-added, the actual return is compared with the policy benchmark. During FY13, the overall alternative investments portfolio performed in line with the policy benchmark. At the sub-asset class level, the real assets portfolio outperformed the policy benchmark for the fiscal year by returning 13.6%, compared to the 7.5% for the benchmark. This outperformance was offset by the underperformance of the private investments portfolio, which achieved a 13.9% return, versus a 23.6% return for the benchmark.

A review of the sub-asset classes within the real assets portfolio shows that the outperformance of the real estate portfolio was more than enough to offset the underperformance turned in by the timber and commodities allocations. Within the private investments portfolio, both the private equity and private debt portfolios found it difficult to keep up with the 23.6% return of the equity based benchmark, although the private debt component was very close. Over a longer timeframe, like the latest 10-year period, the alternative investments portfolio returned 9.2%, annualized, which outperformed the policy benchmark return of 8.5%.

As described in the total fund review section, the strategy benchmark attributes performance to decisions made by staff. These decisions to either deviate, within parameters, from the policy asset allocation or to make specific investment manager selections are tracked on an ongoing basis. The strategy benchmark utilizes a set of indexes that are appropriate given the characteristics of the underlying investments. During FY13, the return of the portfolio trailed the strategy benchmark by 2.9%. This underperformance was due to the timber, private equity and private debt components of the alternative investments portfolio. While each 1-year return is meaningful, given the long term nature of the asset class, measurement over longer periods is more relevant. Since its inception 11 years ago, the portfolio has achieved a return of 10.2%, which outperformed the strategy benchmark return of 9.4%.



* As of 6/30/13, the alternative investments policy benchmark was comprised of the following components: 40% S&P 500+3%, 24% Dow Jones U.S. Select REIT Index, 24% NCREIF Timber, and 12% Goldman Sachs Commodity.

** As of 6/30/13, the alternative investment strategy benchmark was comprised of the following components: 44.6% S&P 500 + 3%; 28.9% real estate consisting of NCREIF, STIF Return, S&P MLP TR Index, actual return of Bayview; 17.6% NCREIF Timber; and 8.91% commodities consisting of S&P GSCI TR Index and S&P GSCI Gold Excess Return Index.

Investment Section

Brokerage Activity

The table below illustrates the brokerage activity occurring within the alternative investments portfolio during the fiscal year. The activity resulted from trading activity in the publicly traded MLP accounts.

Soft Dollar Expenditures

There were no commissions directed for soft dollar credits during the fiscal year ended June 30, 2013.

Alternative Investments - Brokerage Activity

Brokerage Firm	Shares Traded	\$ Volume of Trades	Commissions	
			\$ Amount	Value Per Share
Baird, Robert W & Co., Inc.	28,236	\$ 1,122,474	\$ 847	\$0.03
Barclays Capital	162,768	5,527,574	3,144	0.02
BMO Capital Markets Corp.	4,894	102,904	147	0.03
BNY Convergenx	3,071	92,230	92	0.03
BTIG, LLC	138,049	5,071,812	4,141	0.03
Cantor Fitzgerald & Co., Inc.	23,431	764,910	703	0.03
Citigroup Global Markets, Inc.	106,406	3,490,484	3,192	0.03
Credit Suisse Securities	8,636	317,796	86	0.01
Dahlman Rose & Co., LLC	2,351	15,798	71	0.03
Deutsche Bk Secs, Inc.	8,686	410,632	261	0.03
Global Hunter Securities, Ltd.	8,046	319,609	241	0.03
Imperial Capital, LLC	2,265	53,388	68	0.03
Instinet Corp.	1,368,627	58,329,265	13,686	0.01
JP Morgan Securities, Inc.	15,706	523,699	255	0.02
Janney Montgomery Scott	18,960	798,033	569	0.03
Jonestrading Institutional Services, LLC	222,517	4,457,550	6,676	0.03
Liquidnet, Inc.	110,582	3,988,740	2,212	0.02
Merlin Securities, LLC	643,349	24,297,652	7,986	0.01
Merrill Lynch Pierce Fenner Smith, Inc.	19,666	893,623	590	0.03
Morgan Stanley & Co., Inc.	19,171	460,679	575	0.03
Oppenheimer & Co., Inc.	4,767	225,201	143	0.03
Pershing, LLC	88,893	3,760,116	1,315	0.01
Raymond James & Associates, Inc.	5,218	191,567	157	0.03
RBC Capital Markets, LLC	75,553	3,088,950	2,267	0.03
Scotia Capital (USA), Inc.	3,565	177,155	107	0.03
Stifel Nicolaus	2,988	140,529	90	0.03
UBS Securities, LLC	80,015	2,823,360	2,400	0.03
USCA Securities, LLC	34,958	1,309,065	1,049	0.03
Weeden & Co.	1,327	27,545	40	0.03
Wells Fargo Securities, LLC	156,273	5,658,693	2,817	0.02
	3,368,974	\$128,441,033	\$55,927	\$0.02

REAL ASSETS

Market Value

At the end of FY13, the value of the real assets sub-asset class was \$1.1 billion, representing 13.0% of the total fund.

Summary of Portfolio

The policy allocation target for real assets is 13.6% of the total fund. The actual allocation can operate within a range of +/- 5%. As previously discussed, the portfolio is made up of three separate and distinct components. The market values and percentages of the total fund follow: commodities, \$105.2 million or 1.3%; timber, \$342.7 million or 4.2%; and real estate, \$607.1 million or 7.5%. Compared to their individual policy target allocations, real estate is overweight while timber and commodities are underweight.

MOSERS' commodities portfolio is managed by an external investment advisor. The advisor implements the strategy as efficiently as possible by utilizing exchange-traded futures contracts and/or swap agreements. The futures/swaps, when combined with an underlying portfolio of cash securities, form a portfolio that is benchmarked against the S&P GSCI. While the strategy is designed to closely track the index, there are opportunities when the manager or MOSERS will attempt to add incremental return.

The timber portfolio is made up of a diversified set of timberlands located in a number of U.S. and non-U.S. regions. MOSERS' U.S. portfolio consists of timber assets located in eleven states: two in the Pacific Northwest and nine in the South and Southeast. The non-U.S. portfolio is located in four countries around the globe: Australia, New Zealand, Chile and Uruguay. The portfolio is not only diversified by geography, but by species and age-class as well. The strategy is implemented through three Timber Investment Management Organizations (TIMOs). The timber portfolio is expected to provide economic diversification and help protect the total fund from rising inflation over the long term.

The real estate portfolio invests in a variety of strategies that have characteristics that are similar to those of publicly traded real estate. The portfolio holds a number of private real estate partnerships as well as other private assets that have attributes similar to those of real estate. These assets should, over an investment cycle, provide returns that are higher than those provided by publicly-traded REIT securities. The incremental return is expected to come from compelling strategies, and value added by the manager through their specialized skill, and the illiquidity premium associated with owning private assets. The portfolio also has exposure to publicly-traded income producing assets that have the potential to provide capital appreciation.

Additional Portfolio Information

MOSERS' exposure to real assets is held in portfolios managed by 11 external investment firms and staff. During the fiscal year no new managers were added. The table below displays the statistical performance data (net of fees) of the real assets portfolio as of June 30, 2013.

Real Assets - Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	10 Year
Annualized return	13.6%	12.6%	4.2%	10.0%
Annualized standard deviation	3.66%	5.91%	8.15%	7.86%
Sharpe ratio	3.68	2.11	0.49	1.04
Excess return*	6.07%	2.67%	2.31%	2.17%
Beta*	0.46	0.50	0.31	0.37
Annualized alpha*	9.45%	7.16%	3.47%	6.76%
Correlation*	0.78	0.80	0.63	0.63

**As compared to the real assets policy benchmark.*

PRIVATE INVESTMENTS

Market Value

The private investments portfolio had a value of \$893.8 million, representing 11.1% of the total fund at the end of the fiscal year.

Summary of Portfolio

As of June 30, 2013, the private investments allocation was somewhat above its 9.1% policy target and well within the +/-5% allowable range around the allocation target. The private investments sub-asset class includes the private equity portfolio, valued at \$645.6 million or 8.0% of the total fund; and the private debt portfolio, valued at \$248.2 million or 3.1% of the total fund.

Over the past eleven years the private investments portfolio has developed into a program that is diversified by investment type, investment strategy and geography. The objective of the private investments portfolio is to achieve a high level of return. This is accomplished, in part, by capturing the illiquidity premium associated with private markets. Over longer periods of time the portfolio is expected to produce an incremental return in excess of the return achieved by publicly-traded equities.

During the recent fiscal year, four commitments were made within the private investments portfolio. Three of the commitments were made to firms that currently manage assets on the system's behalf. Each of these managers employ a distinct strategy and specialize in identifying compelling opportunities within their area of expertise. The single new commitment was to a group that focuses on companies within the technology and telecommunication sectors. All four managers have a track record of producing attractive returns and are expected to help the portfolio achieve its long-term objective.

Additional Portfolio Information

At the end of the fiscal year, the private investments sub-asset class was invested in a broad and diverse group of strategies. These strategies are managed by 25 external investment firms and represent exposure to U.S. corporate buyout, European corporate buyout, emerging market private equity, distressed investments, distressed debt, royalties and special situation strategies. In order to sustain exposure to alternative investments MOSERS continues to search for and invest with high quality managers that offer compelling strategies.

The table below displays the statistical performance data (net of fees) of the private investments portfolio as of June 30, 2013.

Private Investments - Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception (Sept. 2002)
Annualized return	13.9%	14.4%	5.4%	7.6%
Annualized standard deviation	3.38%	4.59%	10.57%	8.64%
Sharpe ratio	4.06	3.12	0.48	0.67
Excess return*	(9.74)%	(7.03)%	(4.70)%	(1.67)%
Beta*	0.10	0.16	0.40	0.43
Annualized alpha*	10.86%	40.40%	1.35%	3.45%
Correlation*	0.20	0.46	0.67	0.70

* As compared to the private investments policy benchmark.

BETA BALANCED

Asset Class Summary

As of June 30, 2013, the beta balanced portfolio had a market value of \$2.9 billion, representing 36.7% of the total fund. Performance for the 10 months since inception was -5%, net of fees and expenses.

Highlights

Funding of the beta balanced portfolio commenced on September 1, 2012. Two external managers were hired.

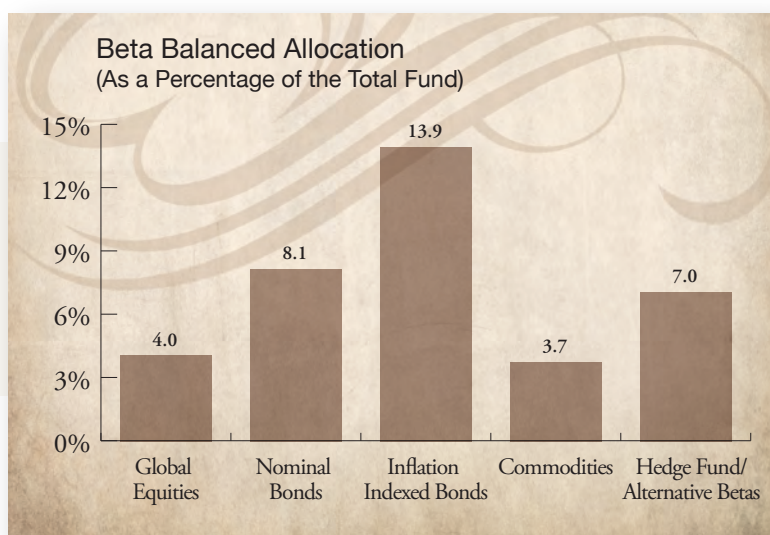
Portfolio Structure

The beta balanced portfolio was 36.7% of the total fund on June 30, 2013. The goal of the beta balanced portfolio is to equalize the portfolio's risk exposures across economic environments and asset classes. The assets currently being used in the beta balanced portfolio are global equities, U.S. nominal bonds, inflation indexed bonds, commodities and hedge fund/alternative betas. The bar chart above illustrates the actual allocations to each of these components.

There is both an internal and external component of the beta balanced portfolio. Bridgewater All Weather and AQR Global Risk Parity are utilized to fulfill the external portion of the portfolio. The internal portion is run with staff's discretion utilizing NISA Investment Advisors to manage the trading and operational aspects of the program.

Market Overview

The markets entered the fiscal year with low expectations arising from a slowing U.S. economy, a difficult U.S. fiscal position, inflamed societies in the Middle East and Europe, and a historically large debt problem in the European Union, and Cyprus threatening to reignite the European debt crisis. In the face of all this uncertainty, stocks, credit and commodities increased and interest rates went down. The cause of this confidence was the global central bank's supportive monetary actions. Entering the last quarter (April – June 2013) the markets were ebullient and the momentum increased in most assets with commodities being a notable exception. However, interest rates had begun to rise on rumors that the Federal Reserve was considering reducing the size of their bond purchase program. Following Bernanke's confirmation of the taper, rumor investors got worried about the impacts of higher interest rates on economic growth and risk assets turned negative. In the end, the losses in June were enough to cause most risk assets to post a negative 4th quarter while at the same time U.S. treasuries lost money.



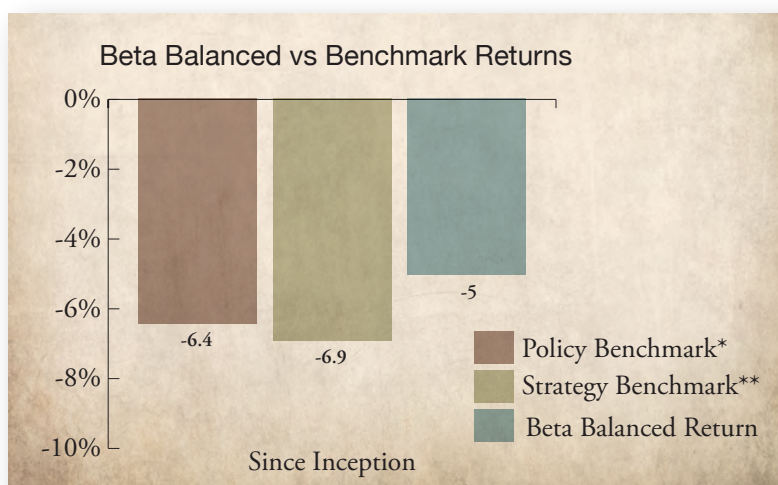
Performance

Since the September 1, 2012 inception, the beta balanced portfolio's performance was -5.0%. During that time frame, 60% of the risk taken in the portfolio was in assets that experienced negative performance with 40% in assets that experienced the opposite. The negative performance came from interest rate sectors, nominal bonds (-10.3%) and inflation indexed bonds (-4.3%), and commodities (-9.4%). The positive performers were global equities (12.6%) and hedge fund/alternative betas (3.0%). The bar chart to the right illustrates actual performance as compared to the policy and strategy benchmarks since inception.

Balancing risk necessitates holding larger weights in less volatile assets and less weight in more volatile assets. Accordingly, the return will be driven by the results of several risk factors versus a traditional equity-risk dominated portfolio where the risk and return are defined by equity prices. During this fiscal year, 60% of the beta balanced portfolio's risk was allocated to assets that had a poor year (nominal bonds, inflation indexed bonds and commodities) while 40% of the portfolio's risk was allocated to assets that had positive performance (equities and hedge fund/alternative betas).

While the portfolio's negative performance isn't an ideal outcome, it is understandable given the economic circumstances during this period. The bond portfolio performed well early in the year when the Fed continued their quantitative easing programs. By spring, the Fed was hinting about curtailing those programs because the growth profile had improved and inflation was well behaved. Assets like inflation indexed bonds and nominal bonds that do poorly when growth is higher than expectations, performed poorly with the prospect of the Fed ending the easy money policies because growth was sufficiently high. Assets, like inflation indexed bonds and commodities that do poorly when inflation runs below expectations, performed poorly when inflation stayed persistently low over the year and the end of QE mitigated the future expectations for high inflation numbers. Equities, or more broadly corporate assets, performed well in light of a higher than expected growth environment and lower than expected inflation environment. Corporations have also stabilized their balance sheets and those companies that wanted to take risk found a hospitable financing environment with low yields and relaxed underwriting standards.

Given that the market environment rewarded equity risk exceptionally well and the other assets exceptionally poorly, it is no surprise that a portfolio that attempts to balance those risks would not produce strong returns in this environment. The statistical performance of the portfolio since inception is provided in the table below.



* As of 6/30/13, the policy benchmark was comprised of the following components: 24% MSCI ACWI, 46% Barclays Long Treasuries, 21% Goldman Sachs Commodity Index, 80% Barclays U.S. TIPS 1-10 year, and 39% AQR Delta. All policy return components are adjusted for financing cost associated with the beta balanced program.

** As of 6/30/13, the beta balanced strategy benchmark was comprised of the following components: 25.39% MSCI ACWI, 42.10% Barclays Long Treasuries, 22.23% S&P GSCI Total Return and S&P GSCI Gold Excess Return, 79.28% Barclays US TIPS 1-10 year, 42.72% AQR Delta. All strategy return components are adjusted for financing cost associated with the beta balanced program.

Beta Balanced - Statistical Performance

Portfolio Characteristics	Since Inception (Sept. 2012)
Annualized return	(5.0)%
Annualized standard deviation	9.98%
Sharpe ratio	(0.51)
Excess return*	1.37%
Beta*	1.05
Annualized alpha*	2.20%
Correlation*	0.96

*As compared to the beta balanced policy benchmark.

BETA/ALPHA PROGRAM

The beta/alpha program began as a result of MOSERS' investment belief that returns from these two components should be managed separately. The beta portion of the program is managed by NISA Investment Advisors. NISA uses futures, total return swaps, and/or Exchange-Traded Funds (ETFs) to gain market exposure to various predefined asset classes. The alpha program is a group of active managers with minimal systematic beta exposure. The objective of the alpha component is to provide a net of fees alpha return of cash plus 4% with similar to slightly higher volatility. This return can then be applied to various asset classes. The combination of the two components produces an efficient total return and also provides MOSERS a great deal of flexibility in the management of the fund.

BETA PROGRAM

Market Value

The total notional exposure was \$1.375 billion as of June 30, 2013.

Summary of Program

The beta component was added to the total fund in FY05. The beta component contained total return swaps and futures as of June 30, 2013. MOSERS is utilizing the beta component within the domestic equity, international equity, commodities and core fixed income sub-asset classes. The beta manager seeks market exposure in the most cost efficient manner and seeks to produce a market return gross of the financing cost to gain beta exposure. The manager's goal is to provide market exposure.

ALPHA PROGRAM

Market Value

The alpha program allocation was \$1.899 billion, or 23.49% of the total fund, as of June 30, 2013.

Summary of Portfolio

The alpha program portfolio was added to the total fund in FY05 with an initial investment in a fund-of-funds manager. MOSERS' hedge fund program is currently comprised of multiple direct hedge fund investments and one customized fund-of-funds vehicle. Alpha program managers utilize skill-based investment strategies, which allow them to take advantage of pricing dislocations that may exist within the market. Alpha program managers seek to produce consistent returns across all economic environments while mitigating downside risk. The ultimate goal within the alpha program is to provide consistent alpha with little correlation to traditional asset classes. MOSERS utilizes different strategies within the alpha program including global macro, event driven, credit related value, multi-strategy, and long/short equity. This portfolio targets the return of cash plus 4% net of fees over long periods of time.

Additional Beta/Alpha Program Information

The table below shows the statistical performance for the alpha program as of June 30, 2013. The impact of the beta exposures is contained in the portfolios where the beta resides. Further information regarding futures contracts and swap contracts can be found on pages 40-41. Management fees can be found on pages 77-78.

Alpha Program - Statistical Performance

Portfolio Characteristics	1 Year	3 Year	5 Year	Since Inception (Oct. 2004)
Annualized return	8.5%	5.3%	2.7%	3.4%
Annualized standard deviation	2.62%	2.46%	4.83%	4.07%
Sharpe ratio*	3.20	2.13	0.50	0.38
Beta as compared to S&P 500	0.29	0.09	0.16	0.14
Beta as compared to Barclays Aggregate	0.19	(0.05)	0.23	0.01

* Sharpe ratio equals the annualized alpha program returns less the risk-free rate divided by the annualized standard deviation. Fees related to the beta program also reflect the risk-free rate; therefore, the risk-free rate is not considered in this calculation.

SECURITIES LENDING PROGRAM

During the fiscal year ending June 30, 2013, MOSERS earned net income of \$1,020,380 through its securities lending program. MOSERS lends its fixed income, domestic equity and international equity securities through Deutsche Bank which manages the program in an agent capacity. In an agent lending program, the agent lender is responsible for making the loans to various broker-dealers, investing the cash collateral associated with the loaned securities, marking the loans and collateral to market on a daily basis, and, in most cases, indemnifying the lender against the default of a broker-dealer to whom they have loaned securities on behalf of the beneficial owner.

Domestic equity income decreased from the prior fiscal year due to a decrease in the average on loan balance and utilization. International equity income decreased from the prior fiscal year stemming from a decrease in the lending margin. The income from fixed income decreased from the prior fiscal year due to a decrease in the lending margin and average on loan balance.

Domestic Equity

Year	Average Lendable	Average on Loan	Average Utilization	Lending Margin (basis points)	Net Income
FY13	\$ 238,024,131	\$ 69,543,634	29.2%	25.1	\$ 596,941
FY12	424,041,044	145,373,164	34.3	19.1	810,972
FY11	376,047,357	111,263,248	29.6	16.5	619,648
FY10	321,114,801	83,944,408	26.1	26.9	864,401
FY09	307,082,718	114,261,769	37.2	52.0	1,596,245
FY08	440,025,347	195,971,154	44.5	36.6	1,611,536
FY07	711,856,029	281,338,681	39.5	14.0	994,416
FY06	856,712,658	377,314,359	44.0	14.2	1,218,245
FY05	775,821,287	247,175,198	31.9	8.4	648,218
FY04	1,552,186,713	176,626,818	11.4	7.2	1,114,144

International Equity

Year	Average Lendable	Average on Loan	Average Utilization	Lending Margin (basis points)	Net Income
FY13	\$192,359,434	\$49,525,171	25.7%	5.6	\$108,379
FY12	309,052,299	47,666,253	15.4	7.5	230,655
FY11	320,082,404	88,623,017	27.7	10.4	333,000
FY10	277,251,343	19,736,528	7.1	4.0	109,946
FY09	342,215,198	32,267,851	9.4	14.9	510,622
FY08	467,893,205	56,944,925	12.2	15.5	726,565
FY07	485,230,034	41,033,858	8.5	8.1	395,017
FY06	483,512,648	48,077,237	9.9	12.9	605,315
FY05	360,790,809	39,881,555	11.1	13.2	476,226
FY04	462,783,570	53,655,836	11.6	9.7	446,880

Fixed Income

Year	Average Lendable	Average on Loan	Average Utilization	Lending Margin (basis points)	Net Income
FY13	\$ 622,620,959	\$ 427,442,773	68.7%	5.1	\$ 315,060
FY12	776,256,144	516,553,974	66.5	6.4	496,074
FY11	805,579,308	505,690,676	62.8	7.2	581,875
FY10	836,242,270	190,547,907	22.8	2.8	230,031
FY09	859,512,525	517,356,516	60.2	43.3	3,722,523
FY08	1,082,813,165	894,372,380	82.6	56.4	6,104,526
FY07	950,069,746	695,743,093	73.2	15.5	1,469,860
FY06	1,183,366,350	776,959,063	65.7	15.7	1,853,181
FY05	1,091,262,589	776,038,981	71.1	19.5	2,126,695
FY04	1,231,730,491	1,043,891,521	84.7	20.1	2,475,630



Actuarial
SECTION

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ACTUARY'S CERTIFICATION LETTER



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October 15, 2013

The Board of Trustees
Missouri State Employees' Retirement System
907 Wildwood Drive
Jefferson City, Missouri 65102

Dear Board Members:

The basic financial objective of the Missouri State Employees' Retirement System (MOSERS) is to establish and receive contributions which:

- (1) when expressed in terms of percents of active member payroll will remain approximately level from generation to generation of Missouri citizens, and which
- (2) when combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of MOSERS.

In order to measure progress toward this fundamental objective, MOSERS and the Judges Retirement Plan (Judges) perform annual actuarial valuations. The purposes of the valuations are to (i) measure present financial position, (ii) establish contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liabilities over a reasonable period, and (iii) to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 25. The latest completed actuarial valuations were based upon data and assumptions as of June 30, 2013, presented to the board in separate reports. These valuations indicate that the contribution rates for the fiscal year ending June 30, 2015, adopted by the board of trustees for the benefits scheduled to be in effect on and after July 1, 2013, meet the basic financial objective. These contribution rates are 16.97% of payroll for 50,833 MOSERS' actives, and 58.45% of payroll for 400 judges' actives.

The actuarial valuations are based upon financial and participant data which is prepared by retirement system staff, assumptions regarding future rates of investment return, salary increases, inflation, and assumptions regarding rates of retirement, turnover, death, and disability among MOSERS' and judges' members and their beneficiaries. The data is reviewed by us for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends.

We are not responsible for the accuracy or completeness of the data. The demographic assumptions were adopted by the board of trustees on June 20, 2012, based upon recommendations made in an experience study covering the period from 2007 to 2012. The economic assumptions were adopted by the board of trustees on July 19, 2012. The assumptions and methods used in this valuation, in our opinion, meet the parameters established by Governmental Accounting Standards Board Statement No. 25.

The benefit structure is outlined in this section of the annual report. We provided the information used in the supporting schedules in the actuarial section and the *Schedules of Funding Progress* in the *Financial Section*, as well as the employer contribution rates shown in the *Schedule of Employer Contributions* in the *Financial Section*.

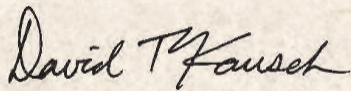
Based upon the valuation results, it is our opinion that the Missouri State Employees' Retirement System and the Judges Retirement Plan continue to operate in accordance with actuarial principles of level percent of payroll financing. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the plans as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

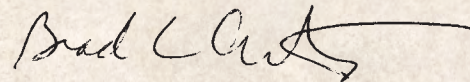
This report should not be relied on for any purpose other than the purposes described. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

David Kausch and Brad Armstrong are independent of the plan sponsor and Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,



David T. Kausch, F.S.A., E.A., M.A.A.A
Senior Consultant & Chief Actuary



Brad Lee Armstrong, A.S.A., E.A., M.A.A.A
Senior Consultant & Actuary

SUMMARY OF ACTUARIAL ASSUMPTIONS

Economic Assumptions

The assumed rate of return on investments used in the FY13 valuations was 8% per year, compounded annually (net after investment expenses). This assumption takes into consideration that equal amounts of money payable at different points in time in the future do not have the same value presently.

Pay increase assumptions for individual active members are shown for sample ages on pages 106-108. A portion of the assumption for each age represents merit and/or seniority increase, and the other 3% recognizes wage inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.

The active member payroll is assumed to increase 3% annually, which is the portion of the individual pay increase assumptions attributable to wage inflation. The annual cost-of-living adjustment (COLA) is assumed to be 4%, on a compounded basis, when a minimum COLA of 4% is in effect (4% for 12 years, 3.06% the next year to reach a cumulative 65% followed by 2%). When no minimum COLA is in effect, price inflation is assumed to be 2.5% and the annual COLA is assumed to be 2% (80% of 2.5%), on a compounded basis.

The table shown below provides the assumed rate of return (ARR) on investments, assumed price inflation (API) and real return objective (RRO) for the past ten valuation years.

Valuation Year	ARR %	API %	RRO %	Valuation Year	ARR %	API %	RRO %
2013	8.0%	2.5%	5.5%	2008	8.5%	3.5%	5.0%
2012	8.0%	2.5%	5.5%	2007	8.5%	3.5%	5.0%
2011	8.5%	3.2%	5.3%	2006	8.5%	3.5%	5.0%
2010	8.5%	3.2%	5.3%	2005	8.5%	3.5%	5.0%
2009	8.5%	3.2%	5.3%	2004	8.5%	3.5%	5.0%

Non-Economic Assumptions

The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the RP 2000 combined healthy mortality table, projected to 2016 with Scale AA. Related values are shown on page 107. This assumption is used to measure the probabilities of each benefit payment being made after retirement. The pre-retirement mortality rates used were 100% of the post-retirement mortality rates for males and 80% of the post-retirement mortality for females.

The mortality tables include a margin of 15% for men and 17% for women for mortality improvements based on the four year experience study from June 30, 2007 to June 30, 2011. The mortality assumption was first used in the June 30, 2012 valuation.

The probabilities of age and service retirement are shown on pages 106-108. It was assumed that each member will be granted one half year (4 months for 2011 plan members) of service credit for unused leave upon retirement and military service purchases. The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages on pages 107-108. For disability retirement, impaired longevity was recognized by use of special mortality tables.

The entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. Each member's normal cost was based on the benefit provisions applicable to that member. The normal cost is projected to the applicable fiscal year. Differences in the past between assumed experience and actuarial experience ("actuarial gains and losses") become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments, (principal & interest) which are level percents of payroll contributions

The amortization of the unfunded actuarial accrued liability is based on a 30-year amortization period, level percent of payroll amortization. The amortization is based on the projected unfunded actuarial accrued liability at the beginning of the fiscal year. This method was first used in the June 30, 2010 valuation.

Employer contribution dollars were assumed to be paid in equal installments throughout the employer's fiscal year.

Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased-in over a rolling three-year period. Valuation assets are not permitted to deviate from the market value by less than 80% or more than 125%.

Actuarial Section

The data about persons now covered and about present assets were furnished by the system's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The liabilities for active members hired on or after January 1, 2011, were based on MSEP 2011 benefits. The liabilities for active members hired on or after July 1, 2000, (April 26, 2005 for administrative law judges) were based on MSEP 2000 benefits. The liabilities for active members hired before July 1, 2000, for elected officials, General Assembly, and uniformed water patrol were based on MSEP benefits. The liabilities for all other active members hired before July 1, 2000, were based on the assumption that members would elect MSEP 2000 prior to age 62 and MSEP on or after age 62.

For member on long-term disability, the actuarial accrued liability is the present value of benefit under active assumptions plus the difference of the present value of benefit with and without future pay growth to reflect indexing of pay in ultimate retirement benefits.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).

MSEP - Retirement Values - June 30, 2013

Sample Attained Ages	Present Value of \$1/Month the First Year (with 50% Joint & Survivor) Increasing 4.0%/2.0% Yearly				Present Value of \$1/Month the First Year Increasing 2.0% Yearly				Future Life Expectancy (Years)			
	Service		Disability		Service		Disability		Service		Disability	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
40	\$224.11	\$224.12	\$212.76	\$211.89	\$184.40	\$186.75	\$169.01	\$172.32	41.95	44.10	32.39	34.43
45	217.22	217.01	202.65	201.39	177.68	180.43	157.94	162.08	37.15	39.24	27.68	29.69
50	208.28	207.81	190.14	188.39	169.01	172.32	144.49	149.76	32.39	34.43	23.13	25.13
55	196.76	196.07	175.18	172.83	157.94	162.08	128.94	135.56	27.68	29.69	18.87	20.84
60	182.48	181.61	157.88	154.80	144.49	149.76	111.76	119.87	23.13	25.13	14.96	16.90
65	165.46	164.49	138.11	134.44	128.94	135.56	92.72	102.82	18.87	20.84	11.39	13.32
70	145.94	144.91	116.94	112.03	111.76	119.87	73.10	84.62	14.96	16.90	8.29	10.12
75	123.90	123.17	96.04	88.83	92.72	102.82	55.15	66.19	11.39	13.32	5.83	7.37
80	100.55	100.10	76.52	68.15	73.10	84.62	40.28	50.49	8.29	10.12	4.03	5.31
85	78.09	77.41	59.89	52.82	55.15	66.19	30.32	40.10	5.83	7.37	2.91	4.05

MSEP - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions - June 30, 2013

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year						Pay Increase Assumptions for an Individual Employee		
		Withdrawal***		Death*		Disability		Merit and Seniority**	Base (Economy)	Increase Next Year
		Men	Women	Men	Women	Men	Women			
	0	23.0%	26.9%							
	1	18.0	20.5							
	2	15.0	15.4							
	3	13.0	12.5							
	4	11.0	10.9							
25	5+	13.0	13.3	0.03%	0.01%	0.17%	0.30%	2.9%	3.0%	5.9%
30		10.2	10.5	0.04	0.02	0.17	0.30	2.2	3.0	5.2
35		7.9	8.1	0.07	0.03	0.21	0.30	1.6	3.0	4.6
40		5.6	5.7	0.09	0.04	0.26	0.32	1.2	3.0	4.2
45		4.2	4.3	0.12	0.07	0.34	0.38	0.9	3.0	3.9
50		2.8	2.9	0.16	0.10	0.49	0.57	0.7	3.0	3.7
55		2.8	2.9	0.27	0.19	1.07	0.89	0.5	3.0	3.5
60		2.8	2.9	0.52	0.37	1.50	1.50	0.4	3.0	3.4
65		2.8	2.9	1.02	0.72	1.60	1.70	0.3	3.0	3.3
70		2.8	2.9	1.74	1.24	1.60	1.70	0.2	3.0	3.2

* 2% of the deaths in active service are assumed to be duty-related.

** Does not apply to members of the General Assembly.

*** Does not apply to elected officials and legislators.

SUMMARY OF ACTUARIAL ASSUMPTIONS

Elected Officials and Legislators - Percent of Active Members Separating Within the Next Year - June 30, 2013			
Years of Service	Withdrawal	Years of Service	Withdrawal
	Men/Women		Men/Women
1	8.0%	5	12.0%
2	8.0	6	12.0
3	8.0	7	12.0
4	8.0	8+	35.0

MSEP - Percent of Eligible Active Members Retiring Next Year - June 30, 2013							
Normal Retirement Pattern					Early Retirement Pattern		
Retirement Age	MSEP and MSEP 2000*			MSEP 2011**	Retirement Age	MSEP*	MSEP 2011**
	Percent Eligible			Percent Eligible		Percent Eligible	Percent Eligible
	1 st Year	2 nd Year	3 rd Year				
48	22%						
49	22	10%					
50	22	10	21%				
51	22	10	21				
52	22	10	21				
53	22	10	18				
54	22	10	18				
55	22	12	26	45%			
56	22	12	25	45			
57	22	12	22	35	57	2.5%	
58	22	12	22	35	58	3.5	
59	22	12	20	30	59	3.5	
60	21	12	22	35	60	5	
61	20	12	20	25	61	6	
62	19	22	30	40	62	6	10%
63	15	18	25	30	63	6	10
64	15	20	17	20	64	6	10
65	20	20	27	30	65	6	50
66	22	20	26	25	66	6	50
67	15	25	22	20	67	6	
68	15	20	22	20	68	6	
69	15	20	22	20	69	6	
70	25	20	22	20	70	6	
71	25	20	22	20	71	6	
72	25	20	22	20	72	6	
73	25	20	22	20	73	6	
74	25	20	22	20	74	6	
75	50	50	22	50	75	6	
76	50	50	22	50	76	6	
77	75	75	22	75	77	6	
78	100	100	100	100	78	100	

* For Members Hired Prior to January 1, 2011.

** For Members Hired On or After January 1, 2011.

Actuarial Section

SUMMARY OF ACTUARIAL ASSUMPTIONS

Judicial Plan - Retirement Values - June 30, 2013

Sample Attained Ages	Present Value of \$1/Month the First Year (with 50% Joint & Survivor) Increasing 4.0%/2.0% Yearly				Present Value of \$1/Month the First Year Increasing 2.0% Yearly				Future Life Expectancy (Years)			
	Service		Disability		Service		Disability		Service		Disability	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
40	\$224.38	\$223.90	\$213.16	\$211.47	\$184.40	\$186.75	\$169.01	\$172.32	41.95	44.10	32.39	34.43
45	217.58	216.73	203.19	200.83	177.68	180.43	157.94	162.08	37.15	39.24	27.68	29.69
50	208.75	207.44	190.84	187.67	169.01	172.32	144.49	149.76	32.39	34.43	23.13	25.13
55	197.38	195.60	176.09	171.92	157.94	162.08	128.94	135.56	27.68	29.69	18.87	20.84
60	183.27	181.03	159.02	153.70	144.49	149.76	111.76	119.87	23.13	25.13	14.96	16.90
65	166.45	163.79	139.51	133.14	128.94	135.56	92.72	102.82	18.87	20.84	11.39	13.32
70	147.12	144.11	118.57	110.55	111.76	119.87	73.10	84.62	14.96	16.90	8.29	10.12
75	125.29	122.34	97.88	87.30	92.72	102.82	55.15	66.19	11.39	13.32	5.83	7.37
80	102.13	99.32	78.52	66.77	73.10	84.62	40.28	50.49	8.29	10.12	4.03	5.31
85	79.74	76.76	61.89	51.78	55.15	66.19	30.32	40.10	5.83	7.37	2.91	4.05

Judicial Plan - Percent of Eligible Active Members Retiring Next Year - June 30, 2013

Normal Retirement Pattern					Early Retirement Pattern		
Retirement Age	Judicial Plan*		Judicial Plan 2011**		Retirement Age	Judicial Plan*	
	Percent Eligible		Percent Eligible			Percent Eligible	
	Men	Women	Men	Women		Men	Women
55	15%	4%					
56	15	4					
57	15	4					
58	15	4					
59	5	4					
60	10	10					
61	5	10					
62	10	10	30%	35%	62	8%	4%
63	10	10	20	20	63	8	4
64	10	10	15	20	64	8	4
65	15	23	30	50	65	8	4
66	20	23	25	25	66	8	4
67	20	23	20	25	67	8	4
68	30	23	20	25	68	8	4
69	30	23	30	50	69	8	4
70	100	100	100	100	70	100	100

* For Members Hired Prior to January 1, 2011

** For Members Hired On or After January 1, 2011

Judicial Plan - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions - June 30, 2013

Sample Ages	Percent of Active Members Separating Within the Next Year				Pay Increase Assumptions for an Individual Employee			Percent of Active Members Separating Within the Next Year		
	Death		Disability		Merit and Seniority	Base (Economy)	Increase Next Year	Withdrawal		
	Men	Women	Men	Woman				Service Index	Men	Women
25	0.03%	0.01%	0.01%	0.01%	2.2%	3.0%	5.2%	1	4.0%	4.0%
30	0.04	0.02	0.02	0.01	2.2	3.0	5.2	2	1.0	1.0
35	0.07	0.03	0.03	0.02	1.5	3.0	4.5	3	1.3	1.3
40	0.09	0.04	0.04	0.03	0.8	3.0	3.8	4	1.3	1.3
45	0.12	0.07	0.05	0.04	0.6	3.0	3.6	5	1.3	1.3
50	0.16	0.10	0.08	0.07	0.5	3.0	3.5	6-10	1.3	1.3
55	0.27	0.19	0.13	0.12	0.4	3.0	3.4	11-31	1.0	1.0
60	0.52	0.37	0.20	0.19	0.0	3.0	3.0			
65	1.02	0.72	0.20	0.19	0.0	3.0	3.0			

SUMMARY OF ACTUARIAL ASSUMPTIONS

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

*June 30, 2013***Pay Increase Timing**

Beginning of (Fiscal) year.

Decrement Timing

Decrements of all types are assumed to occur mid-year.

Eligibility Testing

Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

Benefit Service

Exact fractional service is used to determine the amount of the benefit payable.

Decrement Relativity

Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

Decrement Operation

Disability and withdrawal do not operate during normal retirement eligibility.

Normal Form of Benefit

The assumed normal form of benefit is the straight life form for MSEP 2000 with 50% continuing to an eligible surviving spouse for MSEP. No adjustment has been made for post-retirement option election changes.

For judges, the assumed normal form of benefit is the straight life form, with 50% continuing to an eligible surviving spouse for members hired prior to January 1, 2011.

Other Liability Adjustments***MSEP 2000 Benefits for Active Employees***

Option elections were studied for MSEP 2000 retirees and we believe that the normal and early retirement alternate forms of payment assumption are slightly negatively subsidized. We have adjusted the actuarial accrued liability and normal cost by a factor of 0.99 for MSEP 2000 and MSEP 2011 retirements and by .995 for MSEP retirements based on the current rate of form of payment elections.

Pre-Retirement Survivor Benefits for Spouse of Terminated-Vested Member

Age	Male	Female
<30	1.97	1.68
30-39	1.40	1.29
40-49	1.15	1.11
>50	1.04	1.03

Incidence of Contributions

Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

MSEP 2000 Election

All regular state employees hired on or before June 30, 2000, are assumed to elect MSEP 2000 prior to age 62 and MSEP on or after age 62. Elected Officials, General Assembly, and Uniformed Water Patrol Members hired before July 1, 2000, and Administrative Law Judges hired before April 26, 2005, are assumed to elect MSEP at retirement.

Service Adjustment

It is assumed that each member will be granted one-half year of service credit, three months for unused leave upon retirement and three months for military service purchases. For members hired on or after January 1, 2011, it is assumed that each member will be granted four months for unused leave.

Marriage Assumption

It is assumed that among active members 75% are married at retirement, 70% of those dying in active service are married, and men are three years older than their spouses.

Forfeitures

For those hired on or after January 1, 2011, 50% of state employees terminating at first vesting eligibility are assumed to take a refund and forfeit their deferred pension. This percentage decreases to 0% at first retirement eligibility.

For judges, vested members are assumed not to take a refund of member contributions and forfeit their benefit upon separation from service.

Salary and Benefit Limits

For purposes of the valuation, no limits were applied to member compensation or benefits.

The number of active members is assumed to remain constant although certain new hires on or after July 1, 2002, will participate in the Colleges and Universities Retirement Plan. Active and retired member data is reported as of May 31, 2013. It is assumed for valuation purposes that there is no turnover among members and no new entrants during the month of June 2013. New entrant assumed demographic patterns are based on the demographics of active members hired within the last five years.

Data Adjustments

Active and retired member data was reported as of May 31, 2013. It was brought forward to June 30, 2013, by adding one month of service for all active members and the June COLA for certain retired members. It is expected that this procedure resulted in a slight overstatement of total liabilities as of June 30, 2013. Financial information continues to be reported as of June 30, 2013. This procedure was instituted to provide sufficient time for the board of trustees to certify the appropriate contribution rate prior to the October 1 statutory deadline.

Active members reported with less than a \$100 annualized salary were assumed to receive the average active member pay, which is \$36,952 (\$103,137 for Administrative Law Judges) as of June 30, 2013. There were 16 members affected by this assumption.

For judges, active members reported with no annualized salary were assumed to receive the average active member pay, which is \$121,744, as of June 30, 2013.

When the option of choosing plans is available, terminated vested members are reported with two records, one with benefits under the MSEP plan and one with benefits under the MSEP 2000 plan. Because it is unknown what the member will elect at retirement, both records are valued and the plan that produces the higher present value of future benefits is used for valuation purposes.

For any retired member who has elected a joint and survivor benefit yet has no beneficiary date of birth provided, it was assumed that the beneficiary is three years younger for male retirees and three years older for female retirees. For the terminated vested members, GRS staff found one member less than what was initially reported. This was confirmed with MOSERS staff. For members reported with no gender, the member is assumed to be male.

For judges, for any retired member who has elected a joint and survivor benefit yet has no beneficiary date of birth provided, it was assumed that the beneficiary is four years younger for male retirees and four years older for female retirees.

Due to limitations in our valuation program, members who are not eligible for normal retirement prior to age 85 had their date of birth adjusted.

Summary of Member Data Included in Valuations

Pension Trust Funds - June 30, 2013

Active Members

Valuation Group	Number	Payroll	Group Averages		
			Salary	Age (Yrs.)	Service (Yrs.)
MSEP					
Regular state employees	47,688	\$1,706,683,663	\$ 35,789	45.5	11.0
Elected officials	6	659,969	109,995	48.3	6.4
Legislative clerks	22	749,722	34,078	59.2	21.3
Legislators	197	7,081,591	35,947	50.5	3.7
Uniformed water patrol	16	967,817	60,489	40.6	15.3
Conservation department	1,399	58,789,537	42,023	44.6	14.3
School-term salaried employees	1,477	102,392,802	69,325	56.2	20.4
Administrative law judges	28	2,887,849	103,137	56.6	19.1
Total MSEP group	50,833	\$1,880,212,950	\$ 36,988	45.8	11.3
Judicial Plan	400	\$ 48,697,726	\$121,744	56.7	12.5

Retired Lives

Type of Benefit Payment	Number	Annual Benefits	Group Averages	
			Benefit	Age (Yrs.)
MSEP				
Retirement	34,722	\$542,044,772	\$15,611	69.3
Disability	7	26,544	3,792	61.3
Survivor of active member	1,517	15,384,265	10,141	61.8
Survivor of retired member	2,893	32,415,401	11,205	75.0
Total MSEP group	39,139	\$589,870,982	\$15,071	69.4
Judicial Plan	497	\$ 23,387,811	\$57,118	75.4

Others

Group	Terminated Vested	Leave of Absence	Long-Term Disability
MSEP	18,550	209	1,077
Judicial Plan	31	1	1

Active Members by Attained Age and Years of Service

June 30, 2013

MSEP

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
15-19	38							38	\$ 823,118
20-24	1,478	19						1,497	38,603,844
25-29	3,373	686	13					4,072	123,274,292
30-34	2,595	2,049	570	11				5,225	172,796,554
35-39	1,690	1,562	1,528	454	3			5,237	185,046,291
40-44	1,556	1,346	1,512	1,474	342	26		6,256	230,830,630
45-49	1,429	1,199	1,309	1,289	1,114	519	33	6,892	264,215,718
50-54	1,315	1,280	1,474	1,294	1,075	1,099	479	8,016	313,766,863
55-59	1,023	1,183	1,280	1,237	994	784	558	7,059	279,132,065
60	172	181	226	236	161	103	77	1,156	46,500,580
61	133	192	245	207	152	100	98	1,127	45,532,797
62	151	155	215	153	136	90	90	990	39,567,748
63	99	123	165	128	112	76	66	769	31,159,546
64	75	126	139	119	108	43	61	671	28,741,562
65	60	102	108	72	70	35	41	488	19,991,940
66	41	80	97	72	40	31	38	399	17,751,707
67	37	45	65	47	26	27	34	281	12,770,990
68	13	27	37	34	18	13	17	159	7,578,212
69	14	16	30	22	16	10	18	126	5,524,793
70 & Over	35	58	93	62	39	26	62	375	16,603,700
Totals	15,327	10,429	9,106	6,911	4,406	2,982	1,672	50,833	\$1,880,212,950

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Group Averages: Age - 45.8 years • Service - 11.3 years • Annual pay - \$36,988

Judicial Plan

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
30-34	2							2	\$ 233,712
35-39	5	3						8	929,872
40-44	14	8	2					24	2,876,391
45-49	18	8	18	1				45	5,418,627
50-54	19	14	17	10	3	1		64	7,803,458
55-59	14	21	16	21	6	4	2	84	10,220,548
60	3	4	4	5	6	2	2	26	3,231,265
61	3	5	2	6	3	1		20	2,437,845
62	2	2	11	6	2		1	24	2,917,607
63	1	5	5		1		1	13	1,569,917
64		1	6	5	2	4	3	21	2,565,574
65	1	3	6	2	4	2	1	19	2,314,213
66	1	3	4	7	2		1	18	2,241,620
67		3	4	3		1	1	12	1,494,647
68		1	1		2	2	3	9	1,133,133
69		1	2	2	1	2		8	940,113
70			1	1			1	3	369,184
Totals	83	82	99	69	32	19	16	400	\$48,697,726

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Group Averages: Age - 56.7 years • Service - 12.5 years • Annual pay - \$121,744

Schedules of Active Member Valuation Data

Six Years Ended June 30, 2013

MSEP

Schedule of Active Member Valuation Data				
Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase In Average Pay
June 30, 2008	54,542	\$1,916,527,398	\$35,139	3.44%
June 30, 2009	55,057	2,002,402,087	36,370	3.50
June 30, 2010	53,478	1,945,095,321	36,372	0.01
June 30, 2011	51,660	1,875,569,816	36,306	(0.18)
June 30, 2012	51,332	1,864,069,493	36,314	0.02
June 30, 2013	50,833	1,880,212,950	36,988	1.86

Judicial Plan

Schedule of Active Member Valuation Data				
Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase In Average Pay
June 30, 2008	401	\$44,542,530	\$111,079	8.78%
June 30, 2009	397	45,505,512	114,623	3.19
June 30, 2010	402	46,112,730	114,708	0.07
June 30, 2011	399	45,888,020	115,008	0.26
June 30, 2012	398	45,835,501	115,165	0.14
June 30, 2013	400	48,697,726	121,744	5.71

Retirees and Beneficiaries Added and Removed

Six Years Ended June 30, 2013

MSEP

Fiscal Year Ended	Classification	Benefit Type	Added to Rolls	
			Number	Annual Allowances
June 30, 2008	General employees	Retirement	2,159	\$36,365,696
		Survivor of active	91	971,449
		Survivor of retired	234	2,715,274
		Disability	0	900
		Occupational disability	0	0
	Lincoln university - vested	Retirement	2	5,478
		Survivor of active	0	0
	Legislators	Retirement	9	147,136
		Survivor of active	0	4,489
		Survivor of retired	5	114,053
	Elected officials	Retirement	0	37,804
		Survivor of active	0	2,882
		Survivor of retired	0	1,225
	ALJs	Retirement	2	102,631
		Survivor of active	0	0
		Survivor of retired	1	30,876
June 30, 2009	General employees	Retirement	2,195	37,338,992
		Survivor of active	82	996,258
		Survivor of retired	251	3,077,466
		Disability	0	876
		Occupational disability	0	0
	Lincoln university - vested	Retirement	0	0
		Survivor of active	0	0
	Legislators	Retirement	21	746,414
		Survivor of active	0	5,137
		Survivor of retired	4	84,108
	Elected officials	Retirement	2	105,141
		Survivor of active	0	2,997
		Survivor of retired	0	1,274
	ALJs	Retirement	3	168,517
		Survivor of active	0	0
		Survivor of retired	2	57,238
June 30, 2010	General employees	Retirement	2,298	34,755,192
		Survivor of active	83	1,054,292
		Survivor of retired	246	3,080,424
		Disability	0	830
		Occupational disability	0	0
	Lincoln university - vested	Retirement	1	5,671
		Survivor of active	0	0
	Legislators	Retirement	12	201,562
		Survivor of active	0	3,975
		Survivor of retired	5	78,765
	Elected officials	Retirement	0	0
		Survivor of active	0	3,117
		Survivor of retired	1	34,780
	ALJs	Retirement	3	113,877
		Survivor of active	0	0
		Survivor of retired	0	7,332

Source of Data: MOSERS benefit payment database as of June 30, 2013.
Other Actuarial Section information reported based on MOSERS data as of May 31, 2013.

Removed from Rolls		Rolls at End of Year		Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
Number	Annual Allowances	Number	Annual Allowances			
853	\$9,745,552	26,599	\$397,765,293	7.17%	\$14,954	1.91%
59	259,787	1,336	11,489,155	6.60	8,600	4.05
137	916,500	2,118	20,288,228	9.73	9,579	4.70
1	4,074	11	36,416	(8.02)	3,311	0.36
0	0	0	0	0.00	0	0.00
0	0	13	55,953	10.85	4,304	(6.21)
0	0	1	2,624	0.00	2,624	0.00
10	300,216	249	4,581,935	(3.23)	18,401	(2.85)
0	0	14	155,201	2.98	11,086	2.98
3	24,638	54	708,344	14.45	13,117	10.21
0	0	12	514,994	7.92	42,916	7.92
0	0	1	74,927	4.00	74,927	4.00
0	0	1	31,843	4.00	31,843	4.00
2	94,035	25	1,099,342	0.79	43,974	0.79
0	0	0	0	0.00	0	0.00
0	0	10	245,968	14.35	24,597	2.92
852	9,903,887	27,942	425,200,398	6.90	15,217	1.76
54	390,167	1,364	12,095,246	5.28	8,867	3.10
110	827,564	2,259	22,538,130	11.09	9,977	4.15
1	4,237	10	33,055	(9.23)	3,306	(0.15)
0	0	0	0	0.00	0	0.00
0	0	13	55,953	0.00	4,304	0.00
0	0	1	2,624	0.00	2,624	0.00
8	120,396	262	5,207,953	13.66	19,878	8.03
1	14,128	13	146,210	(5.79)	11,247	1.45
2	20,473	56	771,979	8.98	13,785	5.09
0	0	14	620,135	20.42	44,295	3.21
0	0	1	77,924	4.00	77,924	4.00
0	0	1	33,117	4.00	33,117	4.00
2	90,337	26	1,177,522	7.11	45,289	2.99
0	0	0	0	0.00	0	0.00
1	27,354	11	275,852	12.15	25,077	1.95
833	9,979,318	29,407	449,976,272	5.83	15,302	0.56
49	276,401	1,398	12,873,137	6.43	9,208	3.85
117	1,078,265	2,388	24,540,289	8.88	10,277	3.01
1	2,985	9	30,900	(6.52)	3,433	3.84
0	0	0	0	0.00	0	0.00
0	0	14	61,624	10.14	4,402	2.28
0	0	1	2,624	0.00	2,624	0.00
12	239,880	262	5,169,635	(0.74)	19,731	(0.74)
1	16,709	12	133,476	(8.71)	11,123	(1.10)
0	0	61	850,744	10.20	13,947	1.18
1	66,911	13	553,224	(10.79)	42,556	(3.93)
0	0	1	81,041	4.00	81,041	4.00
0	0	2	67,897	105.02	33,949	2.51
1	46,794	28	1,244,605	5.70	44,450	(1.85)
0	0	0	0	0.00	0	0.00
0	0	11	283,184	2.66	25,744	2.66

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Retirees and Beneficiaries Added and Removed

Six Years Ended June 30, 2013

MSEP

Fiscal Year Ended	Classification	Benefit Type	Added to Rolls	
			Number	Annual Allowances
June 30, 2011	General employees	Retirement	2,850	\$41,203,358
		Survivor of active	65	914,689
		Survivor of retired	298	3,059,195
		Disability	0	79
		Occupational disability	0	0
	Lincoln university - vested	Retirement	1	1,780
		Survivor of active	0	0
	Legislators	Retirement	41	601,171
		Survivor of active	0	2,903
		Survivor of retired	5	73,841
	Elected officials	Retirement	0	0
		Survivor of active	0	3,242
		Survivor of retired	0	1,053
	ALJs	Retirement	4	212,519
		Survivor of active	0	0
		Survivor of retired	0	2,599
June 30, 2012	General employees	Retirement	2,637	39,423,910
		Survivor of active	82	1,129,634
		Survivor of retired	282	3,665,503
		Disability	0	458
		Occupational disability	0	0
	Lincoln university - vested	Retirement	0	0
		Survivor of active	0	0
	Legislators	Retirement	13	229,979
		Survivor of active	0	3,531
		Survivor of retired	4	80,142
	Elected officials	Retirement	2	86,431
		Survivor of active	0	3,371
		Survivor of retired	0	1,336
	ALJs	Retirement	3	124,248
		Survivor of active	1	25,592
		Survivor of retired	2	57,704
June 30, 2013	General employees	Retirement	2,632	40,416,533
		Survivor of active	97	1,080,366
		Survivor of retired	323	4,085,887
		Disability	0	696
		Occupational disability	0	0
	Lincoln university - vested	Retirement	2	5,980
		Survivor of active	0	0
	Legislators	Retirement	37	442,937
		Survivor of active	0	3,851
		Survivor of retired	9	176,283
	Elected officials	Retirement	1	53,873
		Survivor of active	0	3,506
		Survivor of retired	0	1,458
	ALJs	Retirement	4	233,124
		Survivor of active	0	1,024
		Survivor of retired	2	65,892

Source of Data: MOSERS benefit payment database as of June 30, 2013.
Other Actuarial Section information reported based on MOSERS data as of May 31, 2013.

Removed from Rolls		Rolls at End of Year		Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
Number	Annual Allowances	Number	Annual Allowances			
892	\$10,670,476	31,365	\$480,509,154	6.79%	\$15,320	0.12%
46	261,503	1,417	13,526,323	5.07	9,546	3.67
176	1,670,990	2,510	25,928,494	5.66	10,330	0.52
1	1,732	8	29,247	(5.35)	3,656	6.50
0	0	0	0	0.00	0	0.00
0	0	15	63,404	2.89	4,227	(3.98)
0	0	1	2,624	0.00	2,624	0.00
10	185,635	293	5,585,171	8.04	19,062	(3.39)
1	19,612	11	116,767	(12.52)	10,615	(4.57)
2	16,628	64	907,957	6.73	14,187	1.72
0	0	13	553,224	0.00	42,556	0.00
0	0	1	84,283	4.00	84,283	4.00
0	0	2	68,950	1.55	34,475	1.55
0	0	32	1,457,124	17.08	45,535	2.44
0	0	0	0	0.00	0	0.00
1	27,724	10	258,059	(8.87)	25,806	0.24
895	11,116,063	33,107	508,817,001	5.89	15,369	0.32
34	197,452	1,465	14,458,505	6.89	9,869	3.38
158	1,416,283	2,634	28,177,714	8.67	10,698	3.56
0	0	8	29,705	1.57	3,713	1.56
0	0	0	0	0.00	0	0.00
2	11,032	13	52,372	(17.40)	4,029	(4.68)
0	0	1	2,624	0.00	2,624	0.00
8	139,545	298	5,675,605	1.62	19,046	(0.08)
0	0	11	120,298	3.02	10,936	3.02
3	52,550	65	935,549	3.04	14,393	1.45
0	0	15	639,655	15.62	42,644	0.21
0	0	1	87,654	4.00	87,654	4.00
0	0	2	70,286	1.94	35,143	1.94
3	158,072	32	1,423,300	(2.32)	44,478	(2.32)
0	0	1	25,592	0.00	25,592	0.00
0	0	12	315,763	22.36	26,314	1.97
983	12,869,826	34,756	536,363,708	5.41	15,432	0.41
64	400,983	1,498	15,137,889	4.70	10,105	2.39
150	1,363,799	2,807	30,899,802	9.66	11,008	2.90
1	3,854	7	26,546	(10.63)	3,792	2.13
0	0	0	0	0.00	0	0.00
0	0	15	58,351	11.42	3,890	(3.45)
0	0	1	2,623	(0.04)	2,623	(0.04)
15	320,292	320	5,798,251	2.16	18,120	(4.86)
0	0	11	124,149	3.20	11,286	3.20
6	88,725	68	1,023,107	9.36	15,046	4.54
0	0	16	693,528	8.42	43,346	1.65
0	0	1	91,160	4.00	91,160	4.00
0	0	2	71,744	2.07	35,872	2.07
2	111,466	34	1,544,957	8.55	45,440	2.16
0	0	1	26,615	4.00	26,615	4.00
1	22,759	13	358,896	13.66	27,607	4.91

Retirees and Beneficiaries Added and Removed

Six Years Ended June 30, 2013

Judicial Plan

Fiscal Year Ended	Benefit Type	Added to Rolls	
		Number	Annual Allowances
June 30, 2008	Retirement	21	\$1,554,013
	Survivor of active	0	31,650
	Survivor of retired	11	387,194
	Disability	0	0
June 30, 2009	Retirement	30	1,922,615
	Survivor of active	1	59,484
	Survivor of retired	9	418,266
	Disability	0	0
June 30, 2010	Retirement	12	1,137,305
	Survivor of active	0	32,700
	Survivor of retired	11	436,312
	Disability	0	0
June 30, 2011	Retirement	36	2,501,248
	Survivor of active	0	14,893
	Survivor of retired	4	167,535
	Disability	0	0
June 30, 2012	Retirement	18	1,490,554
	Survivor of active	0	22,717
	Survivor of retired	8	371,622
	Disability	0	0
June 30, 2013	Retirement	27	2,233,387
	Survivor of active	0	28,591
	Survivor of retired	8	355,101
	Disability	0	0

Source of Data: MOSERS benefit payment database as of June 30, 2013.
Other Actuarial Section information reported based on MOSERS data as of May 31, 2013.

Removed from Rolls		Rolls at End of Year		Percentage Increase (Decrease) in Annual Allowances	Average Annual Allowances	Percentage Increase (Decrease) in Average Annual Allowances
Number	Annual Allowances	Number	Annual Allowances			
17	\$946,602	311	\$18,659,873	3.36%	\$60,000	2.04%
4	53,658	36	996,941	(2.16)	27,693	8.71
8	181,387	96	2,782,907	7.99	28,989	4.61
0	0	0	0	0.00	0	0.00
15	957,943	326	19,624,545	5.17	60,198	0.33
0	0	37	1,056,425	5.97	28,552	3.10
2	61,344	103	3,139,829	12.83	30,484	5.16
0	0	0	0	0.00	0	0.00
13	750,021	325	20,011,829	1.97	61,575	2.29
2	32,399	35	1,056,726	0.03	30,192	5.74
5	130,920	109	3,445,221	9.73	31,608	3.69
0	0	0	0	0.00	0	0.00
9	563,214	352	21,949,863	9.68	62,358	1.27
1	35,792	34	1,035,827	(1.98)	30,466	0.91
9	206,465	104	3,406,291	(1.13)	32,753	3.62
0	0	0	0	0.00	0	0.00
14	1,074,572	356	22,365,845	1.90	62,825	0.75
0	0	34	1,058,544	2.19	31,134	2.19
6	218,310	106	3,559,603	4.50	33,581	2.53
0	0	0	0	0.00	0	0.00
13	851,802	370	23,747,431	6.18	64,182	2.16
1	33,778	33	1,053,358	(0.49)	31,920	2.52
10	288,980	104	3,625,723	1.86	34,863	3.82
0	0	0	0	0.00	0	0.00

Short-Term Solvency Test

Ten Years Ended June 30, 2013

MSEP

Fiscal Year	Actuarial Accrued Liabilities for				Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)	Actuarial Value of Assets Available for Benefits	(1)	(2)	(3)
2004	\$ 0	\$3,405,053,804	\$3,824,957,124	\$6,118,214,495	100.0%	100.0%	70.9%
2005	0	3,629,506,014	3,948,522,003	6,435,344,102	100.0	100.0	71.1
2006	0	3,876,349,145	4,136,856,269	6,836,567,188	100.0	100.0	71.6
2007	0	4,208,621,537	4,291,807,104	7,377,289,283	100.0	100.0	73.8
2008	0	4,408,682,437	4,719,665,033	7,838,495,768	100.0	100.0	72.7
2009	0	4,737,859,976	4,756,946,739	7,876,079,342	100.0	100.0	66.0
2010	0	5,012,677,769	4,840,477,676	7,923,377,393	100.0	100.0	60.1
2011	67,126	5,357,794,617	4,765,682,300	8,022,481,408	100.0	100.0	55.9
2012	706,422	5,749,411,068	5,043,534,087	7,897,167,203	100.0	100.0	42.6
2013	1,504,901	6,062,654,441	5,070,478,142	8,096,436,929	100.0	100.0	40.1

ALJLAP*

Fiscal Year	Actuarial Accrued Liabilities for				Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)	Actuarial Value of Assets Available for Benefits	(1)	(2)	(3)
2004	\$0	\$9,188,086	\$11,196,127	\$16,238,804	100.0%	100.0%	63.0%

* Assets and liabilities transferred to the MSEP during fiscal year 2005

Judicial Plan

Fiscal Year	Actuarial Accrued Liabilities for				Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)	Actuarial Value of Assets Available for Benefits	(1)	(2)	(3)
2004	\$ 0	\$162,539,486	\$117,857,978	\$ 39,120,142	100.0%	24.1%	0.0%
2005	0	168,703,822	123,600,064	44,223,509	100.0	26.2	0.0
2006	0	171,677,032	137,325,720	51,652,867	100.0	30.1	0.0
2007	0	199,489,503	127,176,870	61,903,516	100.0	31.0	0.0
2008	0	216,369,879	138,426,574	73,194,379	100.0	33.8	0.0
2009	0	231,505,591	137,601,250	81,337,881	100.0	35.1	0.0
2010	0	236,113,077	145,899,696	88,976,738	100.0	37.7	0.0
2011	284	251,532,354	141,951,951	98,398,628	100.0	39.1	0.0
2012	795	258,642,149	154,689,594	102,266,706	100.0	39.5	0.0
2013	2,924	274,911,416	160,464,018	111,140,339	100.0	40.4	0.0

Derivation of Experience Gain (Loss)

Year Ended June 30, 2013

MSEP

Actual experience will never coincide exactly with assumed experience (except by coincidence). Gains and losses may offset each other over a period of years, but sizeable year-to-year variations from assumed experience are common. Detail on the derivation of the experience gain (loss) is shown below.

	\$ Millions
(1) Unfunded actuarial accrued liability (UAAL) at beginning of year	\$2,896.5
(2) Normal cost from last valuation	160.6
(3) Actual employer contributions	290.3
(4) Interest accrual: $(1) \times .085 + [(2) - (3)] \times (.085/2)$	226.5
(5) Expected UAAL before changes: $(1) + (2) - (3) + (4)$	2,993.3
(6) Change from any changes in benefits, assumptions, or methods	(262.4)
(7) Expected UAAL after changes: $(5) + (6)$	2,730.9
(8) Actual UAAL at end of year	3,038.2
(9) Gain (loss) $(7) - (8)$	(307.3)
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$10,794)	(2.8)%

Valuation Date June 30	Actuarial Gain (Loss) As a % of Beginning Accrued Liabilities
2004	(6.0)%
2005	(3.4)
2006	(0.1)
2007	1.0
2008	0.1
2009	(5.2)
2010	(4.0)
2011	(2.4)
2012	(4.7)
2013	(2.8)

Judicial Plan

The actuarial gains or losses realized in the operation of the Retirement System provide an experience test. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year-by-year comparative schedule.

	\$ Millions
(1) Unfunded actuarial accrued liability (UAAL) at beginning of year	\$311.1
(2) Employer normal cost middle of year	9.2
(3) Employer contributions	28.3
(4) Interest	
a. on (1)	24.9
b. on (2)	0.3
c. on (3)	1.1
d. total $[a+b+c]$	24.1
(5) Expected UAAL end of year before changes	316.1
(6) Change in UAAL end of year	
a. amendments	0.0
b. assumptions (pay freeze)	0.0
c. methods	(2.7)
d. total	(2.7)
(7) Expected UAAL after changes: $(5) + (6d.)$	313.4
(8) Actual UAAL at end of year	324.2
(9) Gain (loss) $(7) - (8)$	(10.8)
(10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$413.3)	(2.6)%

Valuation Date June 30	Actuarial Gain (Loss) As a % of Beginning Accrued Liabilities
2004	(1.0)%
2005	(0.1)
2006	(1.1)
2007	(0.6)
2008	(3.0)
2009	(1.8)
2010	(1.1)
2011	(0.4)
2012	(0.6)
2013	(2.6)

Comparison of Plans for General State Employees

June 30, 2013

MSEP • MSEP 2000 • MSEP 2011

Benefit Provisions	MSEP
Membership eligibility	<ul style="list-style-type: none"> Members who work in a permanent position normally requiring at least 1,040 hours of work a year.
Vesting	<ul style="list-style-type: none"> 5 years
Base benefit formula	<ul style="list-style-type: none"> $.016 \times \text{FAP} \times \text{service}$ <i>In the past, formula increases have been passed along to MSEP retirees.</i>
Temporary benefit formula	<ul style="list-style-type: none"> Not available
Benefit payment options	<ul style="list-style-type: none"> Life income annuity Unreduced joint & 50% survivor Joint & 100% survivor Life income with 60 guaranteed payments Life income with 120 guaranteed payments
Cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> If hired before August 28, 1997, will receive 4-5% each year until reaching the 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). If hired on or after August 28, 1997, annual COLA will be based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	<ul style="list-style-type: none"> Age 65 and active with 4 years of service Age 65 with 5 years of service Age 60 with 15 years of service "Rule of 80" - at least age 48 with age and service equaling 80 or more Age 50 if first became eligible prior to August 28, 2003
Early retirement eligibility	<ul style="list-style-type: none"> Age 55 with 10 years of service <i>Base benefit will be reduced $\frac{1}{2}$ of 1% (.005) for each month member's age is younger than normal retirement.</i>
Death before retirement	<ul style="list-style-type: none"> Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Duty-related death (<i>no minimum service requirement</i>). <ul style="list-style-type: none"> Survivor benefit to eligible spouse or children no less than 50% of average compensation.
In-service COLA	<ul style="list-style-type: none"> COLA given for service beyond age 65. COLA provisions are determined by employment date.
BackDROP	<ul style="list-style-type: none"> Must work at least two years beyond normal retirement eligibility to be eligible for BackDROP.
Service purchases	<ul style="list-style-type: none"> May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	<ul style="list-style-type: none"> May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	<ul style="list-style-type: none"> None

MSEP 2000	MSEP 2011
<ul style="list-style-type: none"> Members hired for the first time on or after July 1, 2000, in a permanent position normally requiring at least 1,040 hours of work a year. Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a permanent position normally requiring at least 1,040 hours of work a year. 	<ul style="list-style-type: none"> Members hired for the first time on or after January 1, 2011, in a permanent position normally requiring at least 1,040 hours of work a year.
<ul style="list-style-type: none"> 5 years .017 x FAP x service <i>Future formula increases, if any, will not be passed along to retirees.</i> .008 x FAP x service <i>Available to those who retire under the "Rule of 80."</i> Life income annuity Joint & 50% survivor Joint & 100% survivor Life income with 120 guaranteed payments Life income with 180 guaranteed payments Based on 80% of the percentage increase in the CPI (0-5%). 	<ul style="list-style-type: none"> 10 years .017 x FAP x service <i>Future formula increases, if any, will not be passed along to retirees.</i> .008 x FAP x service <i>Available to those who retire under the "Rule of 90."</i> Life income annuity Joint & 50% survivor Joint & 100% survivor Life income with 120 guaranteed payments Life income with 180 guaranteed payments Based on 80% of the percentage increase in the CPI (0-5%).
<ul style="list-style-type: none"> Age 62 with 5 years of service "Rule of 80" - at least age 48 with age and service equaling 80 or more Age 50 if first became eligible prior to August 28, 2003 	<ul style="list-style-type: none"> Age 67 with 10 years of service "Rule of 90" - at least age 55 with age and service equaling 90 or more <i>Terminated-vested members not eligible for "Rule of 90."</i>
<ul style="list-style-type: none"> Age 57 with 5 years of service <i>Base benefit will be reduced ½ of 1% (.005) for each month member's age is younger than normal retirement.</i> 	<ul style="list-style-type: none"> Age 62 with 10 years of service; base benefit will be reduced ½ of 1% (.005) for each month member's age is younger than normal retirement. <i>Terminated-vested members are not eligible.</i>
<ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Survivor benefit to eligible spouse or children no less than 50% of average compensation (no service requirement). 	<ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Survivor benefit to eligible spouse or children no less than 50% of average compensation (no service requirement).
<ul style="list-style-type: none"> Not available 	<ul style="list-style-type: none"> Not available
<ul style="list-style-type: none"> Must work at least two years beyond normal retirement eligibility to be eligible for BackDROP. May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost. May transfer service under 104.1090 from other systems with written agreements to transfer required funds. 	<ul style="list-style-type: none"> Not available May purchase qualifying public sector service at full actuarial cost.
<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Not available 4% of pay

SUMMARY OF PLAN PROVISIONS

Comparison of Plans for Legislators

June 30, 2013

MSEP • MSEP 2000 • MSEP 2011

Benefit Provisions	MSEP
Membership eligibility	<ul style="list-style-type: none"> Elected to the General Assembly
Vesting	<ul style="list-style-type: none"> 3 full-biennial assemblies (6 years)
Base benefit formula	<ul style="list-style-type: none"> Biennial assemblies x \$150 <i>In the past, formula increases have been passed along to MSEP retirees.</i>
Temporary benefit formula	<ul style="list-style-type: none"> Not available
Benefit payment options	<ul style="list-style-type: none"> Life income annuity <i>Unreduced</i> joint & 50% survivor Joint & 100% survivor Life income with 60 guaranteed payments Life income with 120 guaranteed payments
Cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> If sworn in before August 28, 1997, will receive 4-5% each year until reaching 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). If sworn in on or after August 28, 1997, COLA will be based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	<ul style="list-style-type: none"> Age 55 with 3 full-biennial assemblies or "Rule of 80" - at least age 48 with age and service equaling 80 or more
Early retirement eligibility	<ul style="list-style-type: none"> Not available
Death before retirement	<ul style="list-style-type: none"> Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse or children no less than 50% of the rate of compensation.
In-service COLA	<ul style="list-style-type: none"> COLA given for service beyond age 65. COLA provisions are determined by employment date.
BackDROP	<ul style="list-style-type: none"> Not available
Service purchases	<ul style="list-style-type: none"> May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	<ul style="list-style-type: none"> May transfer state service to other positions covered by MOSERS under 104,800.
Member contributions	<ul style="list-style-type: none"> None

MSEP 2000	MSEP 2011
<ul style="list-style-type: none"> Elected to the General Assembly on or after July 1, 2000 3 full-biennial assemblies (6 years) (Active legislator's pay ÷ 24) x service <i>Capped at 100% of pay; future formula increases, if any, will not be passed along to retirees.</i> Not available Life income annuity Joint & 50% survivor Joint & 100% survivor Life income with 120 guaranteed payments Life income with 180 guaranteed payments Benefit adjustment based on increase in pay for an active member of the general assembly. 	<ul style="list-style-type: none"> Elected to the General Assembly on or after January 1, 2011 3 full-biennial assemblies (6 years) (Active legislator's pay ÷ 24) x service <i>Capped at 100% of pay; future formula increases, if any, will not be passed along to retirees.</i> Not available Life income annuity Joint & 50% survivor Joint & 100% survivor Life income with 120 guaranteed payments Life income with 180 guaranteed payments Benefit adjustment based on increase in pay for an active member of the general assembly.
<ul style="list-style-type: none"> Age 55 with 3 full-biennial assemblies or "Rule of 80" - at least age 50 with age and service equaling 80 or more Not available 	<ul style="list-style-type: none"> Age 62 with 3 full-biennial assemblies or "Rule of 90" - at least age 55 with age and service equaling 90 or more Not available
<ul style="list-style-type: none"> Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse or children no less than 50% of rate of compensation. Not available 	<ul style="list-style-type: none"> Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse or children no less than 50% of rate of compensation. Not available
<ul style="list-style-type: none"> Not available May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost. May transfer service under 104.1090 from other systems with written agreements to transfer required funds. None 	<ul style="list-style-type: none"> Not available May purchase qualifying public sector service at full actuarial cost. Not available 4% of pay

SUMMARY OF PLAN PROVISIONS

Comparison of Plans for Statewide Elected Officials

June 30, 2013

MSEP • MSEP 2000 • MSEP 2011

Benefit Provisions	MSEP
Membership eligibility	<ul style="list-style-type: none"> Elected to state office
Vesting	<ul style="list-style-type: none"> 4 years (1 term)
Base benefit formula	<ul style="list-style-type: none"> Less than 12 years of service FAP x .016 x service 12 or more years of service Monthly statutory compensation x .50 <i>In the past, formula increases have been passed along to MSEP retirees.</i>
Temporary benefit formula	<ul style="list-style-type: none"> Not available
Benefit payment options	<ul style="list-style-type: none"> Life income annuity Unreduced joint & 50% survivor Joint & 100% survivor Life income with 60 guaranteed payments Life income with 120 guaranteed payments
Cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> Less than 12 years of service <ul style="list-style-type: none"> Statewide elected officials sworn in before August 28, 1997 will receive 4-5% each year until they reach 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). Statewide elected officials sworn in between August 28, 1997 and June 30, 2000, will receive a COLA equal to 80% of percentage increase in the CPI (0-5%). 12 or more years of service Statewide elected officials with 12 or more years of service will receive a COLA based on increases in statutory compensation for the highest position held.
Normal retirement eligibility	<ul style="list-style-type: none"> Age 60 with 15 years of service or "Rule of 80" - at least age 50 with age and service equaling 80 or more
Early retirement eligibility	<ul style="list-style-type: none"> Age 55 with 10 years of service
Death before retirement	<ul style="list-style-type: none"> Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse or children no less than 50% of current pay.
In-service COLA	<ul style="list-style-type: none"> COLA provisions determined by amount of service relative to 12 years and date of employment.
BackDROP	<ul style="list-style-type: none"> Not available
Service purchases	<ul style="list-style-type: none"> May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	<ul style="list-style-type: none"> May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	<ul style="list-style-type: none"> None

MSEP 2000	MSEP 2011
<ul style="list-style-type: none"> • First employed on or after July 1, 2000 • 4 years (1 term) • (Active elected official's pay ÷ 24) x service <i>Capped at 12 years of service or 50% of pay; future formula increases, if any, will not be passed along to retirees.</i> 	<ul style="list-style-type: none"> • First employed on or after January 1, 2011 • 4 years (1 term) • (Active elected official's pay ÷ 24) x service <i>Capped at 12 years of service or 50% of pay; future formula increases, if any, will not be passed along to retirees.</i>
<ul style="list-style-type: none"> • Not available • Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments 	<ul style="list-style-type: none"> • Not available • Life income annuity • Joint & 50% survivor • Joint & 100% survivor • Life income with 120 guaranteed payments • Life income with 180 guaranteed payments
<ul style="list-style-type: none"> • Benefit adjustment based on increase in pay for an active statewide elected official. 	<ul style="list-style-type: none"> • Benefit adjustment based on increase in pay for an active statewide elected official.
<ul style="list-style-type: none"> • Age 55 with 4 years of service or "Rule of 80" - at least age 50 with age and service equaling 80 or more 	<ul style="list-style-type: none"> • Age 62 with 4 years of service or "Rule of 90" - at least age 55 with age and service equaling 90 or more
<ul style="list-style-type: none"> • Not available • Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> – Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. • Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> – Survivor benefit to eligible spouse or children no less than 50% of current pay. 	<ul style="list-style-type: none"> • Not available • Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> – Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. • Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> – Survivor benefit to eligible spouse or children no less than 50% of current pay.
<ul style="list-style-type: none"> • Not available 	<ul style="list-style-type: none"> • Not available
<ul style="list-style-type: none"> • Not available 	<ul style="list-style-type: none"> • Not available
<ul style="list-style-type: none"> • May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate; may also purchase public sector service at full actuarial cost. 	<ul style="list-style-type: none"> • May purchase qualifying public sector service at full actuarial cost.
<ul style="list-style-type: none"> • May transfer service under 104.1090 from other systems with written agreements to transfer required funds. 	<ul style="list-style-type: none"> • Not available
<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • 4% of pay

Comparison of Plans for Judges

June 30, 2013

Judicial Plan • Judicial Plan 2011

Benefit Provisions	Judicial Plan
Membership eligibility	<ul style="list-style-type: none"> Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court appointed after February 29, 1972; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court.
Vesting	<ul style="list-style-type: none"> Immediate
Base benefit formula	<ul style="list-style-type: none"> Monthly pay x .50 = monthly base benefit
Temporary benefit formula	<ul style="list-style-type: none"> Not available
Benefit payment options	<ul style="list-style-type: none"> Life income annuity Automatic <i>unreduced</i> joint and 50% survivor option <i>If married at least two continuous years immediately preceding judges death.</i>
Cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> If hired before August 28, 1997, will receive 4-5% each year until reaching 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%) If hired on or after August 28, 1997, based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	<ul style="list-style-type: none"> Age 62 with 12 years service Age 60 with 15 years service Age 55 with 20 years service
Reduced retirement eligibility	<ul style="list-style-type: none"> Age 60 if less than 15 years service Age 62 if less than 12 years service
Death before retirement	<ul style="list-style-type: none"> Non duty-related death <ul style="list-style-type: none"> Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70. Duty-related death <ul style="list-style-type: none"> Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.
In-service cola <i>Service beyond age 65</i>	<ul style="list-style-type: none"> Judges who are at least age 60 and work beyond the date first eligible for unreduced benefits will receive COLAs for each year worked beyond normal retirement eligibility. COLA provisions are determined by date of employment.
BackDROP	<ul style="list-style-type: none"> Not available
Service purchases	<ul style="list-style-type: none"> May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	<ul style="list-style-type: none"> May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	<ul style="list-style-type: none"> None

Judicial Plan 2011

- Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court appointed or elected a judge for the first time on or after January 1, 2011.
- Immediate
- Monthly pay x .50 = monthly base benefit
- Not available
- Life income annuity
- Joint & 50% survivor
- Joint & 100% survivor
- Life income with 120 guaranteed payments
- Life income with 180 guaranteed payments
- Based on 80% of the percentage increase in the CPI (0-5%)
- Age 67 with 12 years service
- Age 62 with 20 years service
- Age 67 if less than 12 years service
- Age 62 if less than 20 years service
- Non duty-related death
 - Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70.
- Duty-related death
 - Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.
- Not available
- Not available
- May purchase qualifying public sector service at full actuarial cost.
- May transfer state service to other positions covered by MOSERS under 104.800.
- 4% of pay

SUMMARY OF PLAN PROVISIONS

Comparison of Plans for Uniformed Members of the Water Patrol

June 30, 2013

MSEP • MSEP 2000

Benefit Provisions	MSEP	MSEP 2000
Membership eligibility	<ul style="list-style-type: none"> Members who work in a permanent position normally requiring at least 1,040 hours of work a year. 	<ul style="list-style-type: none"> Members hired for the first time on or after July 1, 2000, in a permanent position normally requiring at least 1,040 hours of work a year. Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a permanent position normally requiring at least 1,040 hours of work a year.
Vesting	<ul style="list-style-type: none"> 5 years of service 	<ul style="list-style-type: none"> 5 years of service
Base benefit formula	<ul style="list-style-type: none"> 1.6% x FAP x service increased by 33.3% 	<ul style="list-style-type: none"> 1.7% x FAP x service
Temporary benefit formula	<ul style="list-style-type: none"> Not available 	<ul style="list-style-type: none"> 0.8% x FAP x service (must retire under "Rule of 80")
Benefit payment options	<ul style="list-style-type: none"> Life income annuity Unreduced joint and 50% survivor Joint & 100% survivor 120 Or 180 guaranteed payments 	<ul style="list-style-type: none"> Life income annuity Joint & 50% survivor Joint & 100% survivor 120 Or 180 guaranteed payments
Cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> If hired before August 28, 1997, will receive 4-5% each year until reaching 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI (0-5%). If hired on or after August 28, 1997, based on 80% of the percentage increase in the CPI (0-5%). 	<ul style="list-style-type: none"> Based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	<ul style="list-style-type: none"> Age 55 and active with 4 years of service Age 55 with 5 years of service "Rule of 80" - minimum age 48 	<ul style="list-style-type: none"> Age 62 with 5 years of service "Rule of 80" - minimum age 48
Early retirement eligibility	<ul style="list-style-type: none"> Not available 	<ul style="list-style-type: none"> Age 57 with 10 years of service
Death before retirement	<ul style="list-style-type: none"> Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse or children no less than 50% of current pay. 	<ul style="list-style-type: none"> Non duty-related death (<i>vested members</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse calculated using the joint & 100% survivor option or 80% of the member's life income annuity paid to eligible children. Duty-related death (<i>no minimum service requirement</i>) <ul style="list-style-type: none"> Survivor benefit to eligible spouse or children no less than 50% of current pay.
In-service COLA	<ul style="list-style-type: none"> COLA given for service beyond age 65. COLA provisions are determined by employment date. 	<ul style="list-style-type: none"> Not available
BackDROP	<ul style="list-style-type: none"> Not available 	<ul style="list-style-type: none"> Not available
Service purchases	<ul style="list-style-type: none"> May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost. 	<ul style="list-style-type: none"> May purchase qualifying public sector service at full actuarial cost.
Service transfers	<ul style="list-style-type: none"> May transfer state service to other positions covered by MOSERS under 104.800. 	<ul style="list-style-type: none"> Not available
Member contributions	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None

SUMMARY OF PLAN PROVISIONS

Administrative Law Judges and Legal Advisors Plan

June 30, 2013

Benefit Provisions	Requirements
Membership eligibility	<ul style="list-style-type: none"> Administrative law judge or legal advisor in the Division of Workers' Compensation, a member or legal counsel of the Labor and Industrial Relations Commission, chairperson of the State Board of Mediation, or an administrative hearing commissioner hired prior to April 26, 2005.
Vesting	<ul style="list-style-type: none"> Immediate
Base benefit formula	<ul style="list-style-type: none"> Normal retirement eligibility 50% of the average highest 12 consecutive months of salary
Temporary benefit formula	<ul style="list-style-type: none"> Not available
Benefit payment options	<ul style="list-style-type: none"> Life income annuity (if unmarried) Automatic <i>unreduced</i> joint and 50% survivor option <ul style="list-style-type: none"> If married on date of termination and two continuous years immediately preceding judges death.
Cost-of-living adjustment (COLA)	<ul style="list-style-type: none"> If hired before August 28, 1997, will receive 4-5% each year until reaching 65% cap. After COLA cap, the rate is based on 80% of the percentage increase in the CPI. If hired on or after August 28, 1997, based on 80% of the percentage increase in the CPI (0-5%).
Normal retirement eligibility	<ul style="list-style-type: none"> Age 62 with 12 years of service Age 60 with 15 years of service Age 55 with 20 years of service
Reduced retirement eligibility	<ul style="list-style-type: none"> Age 65 with less than 12 years of service with reduced benefit, based upon years of service relative to 12 years.
Death before retirement	<ul style="list-style-type: none"> Non duty-related death <ul style="list-style-type: none"> Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service relative to 12 years. Duty-related death <ul style="list-style-type: none"> Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.
In-service COLA	<ul style="list-style-type: none"> Not available
BackDROP	<ul style="list-style-type: none"> Not available
Service purchases	<ul style="list-style-type: none"> May purchase up to 4 years of active-duty military service or qualifying public sector service at subsidized rate. May also purchase public sector service at full actuarial cost.
Service transfers	<ul style="list-style-type: none"> May transfer state service to other positions covered by MOSERS under 104.800.
Member contributions	<ul style="list-style-type: none"> None
<p>* All new administrative law judges and legal advisors hired on or after April 26, 2005, who were not previously covered by a retirement system under Chapter 287, RSMo, participate in the MSEF, which is covered under Chapter 104, RSMo.</p>	

Life Insurance Plans

June 30, 2013

MOSERS administers basic and optional term life insurance plans for eligible state employees and retirees.

Active Members*

Plan Provision	Requirement
<ul style="list-style-type: none"> • Basic life insurance - An amount equal to one times annual salary (with a minimum of \$15,000) while actively employed. 	<ul style="list-style-type: none"> • Actively employed in an eligible state position resulting in membership in MOSERS.
<ul style="list-style-type: none"> • Duty-related death benefit - Duty-related death benefit equivalent to two times the annual salary the member was earning at the time of death in addition to the basic life insurance amount of one times annual salary. 	<ul style="list-style-type: none"> • Actively employed in an eligible state position resulting in membership in MOSERS.
<ul style="list-style-type: none"> • Optional life insurance - Additional life insurance may be purchased in a flat amount in multiples of \$10,000 not to exceed the maximum (lesser of six times annual salary or \$800,000). Spouse coverage may be purchased in multiples of \$10,000 up to a maximum of \$100,000; however, the amount of spouse coverage cannot exceed the amount of optional life insurance coverage the member has purchased. Coverage for children is available in a flat amount of \$10,000 per child. 	<ul style="list-style-type: none"> • Actively employed in an eligible state position resulting in membership in MOSERS.

* Terminating employees may convert coverage up to the amount they had as an active employee at individual rates.

Retired Members

Plan Provision	Requirement
<ul style="list-style-type: none"> • Basic life insurance at retirement - \$5,000 basic life insurance during retirement. 	<ul style="list-style-type: none"> • Must retire directly from active employment.
<ul style="list-style-type: none"> • Optional life insurance at retirement (MSEP) - An employee may retain up to the lesser of \$60,000 or the amount of optional life insurance coverage held at the time of retirement at the group rate and may convert any remaining basic and optional life insurance at individual rates. 	<ul style="list-style-type: none"> • Must retire directly from active employment.
<ul style="list-style-type: none"> • Optional life insurance at retirement (MSEP 2000) - Under "Rule of 80", an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to \$60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse ends at member's retirement and may be converted at individual rates. 	<ul style="list-style-type: none"> • Must retire directly from active employment.
<ul style="list-style-type: none"> • Optional life insurance at retirement (MSEP 2011) - Under "Rule of 90", an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to \$60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse ends at member's retirement and may be converted at individual rates. 	<ul style="list-style-type: none"> • Must retire directly from active employment.

SUMMARY OF PLAN PROVISIONS

Long-Term Disability (LTD) Plans

June 30, 2013

MOSERS administers the LTD Plan for eligible state employees who become disabled during active employment.

Active Members

Classification	Requirement
<ul style="list-style-type: none"> General state employees, legislators, and elected state officials - Members of MOSERS in a position normally requiring 1,040 hours of work a year are covered under the LTD plan, unless they work for a state agency which has its own LTD plan. 	<ul style="list-style-type: none"> Eligible participants receive 60% of their compensation minus primary social security, workers' compensation, and employer provided income. Benefits commence after 90 days of disability or after sick leave expires, whichever occurs last. LTD benefits cease upon the earliest of (i) when disability ends, (ii) when the member is first eligible for normal retirement benefits or is receiving early retirement benefits, (iii) when the member returns to work, or (iv) upon a member's death.
<ul style="list-style-type: none"> Water patrol 	<ul style="list-style-type: none"> Uniformed members who are eligible for statutory occupational disability receive benefits equal to 50% of compensation with no offset for social security at the time of disability. For nonoccupational disabilities, eligible participants receive the same benefit as general employees.
<ul style="list-style-type: none"> Judges 	<ul style="list-style-type: none"> In addition to the disability benefits provided to general employees, judges also receive benefits under the state constitution. Participants receive 50% of salary until the current term expires.

Changes in Plan Provisions

HB 233 was enacted during FY13 – legislation which contained minor clarifications and administrative changes to the retirement plans administered by MOSERS; however, there were no changes in benefit plan provisions this year.

Actuarial Present Values

June 30, 2013

MSEP

Actuarial Present Value June 30, 2013 for	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active members			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$4,754,705,778	\$648,442,753	\$4,106,263,025
Disability benefits likely to be paid to present active members who become totally and permanently disabled	138,509,142	86,334,651	52,174,491
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	94,722,679	22,042,669	72,680,010
Separation benefits likely to be paid to present active members	407,756,601	191,406,641	216,349,960
Refunds likely to be paid to present active members	24,363,928	22,859,027	1,504,901
Active member totals	\$5,420,058,128	\$971,085,741	4,448,972,387
Members on leave of absence & LTD			
Service retirement benefits based on service rendered before the valuation date			94,092,558
Terminated-vested members			
Service retirement benefits based on service rendered before the valuation date			528,918,098
Retired lives			6,061,942,427
BackDROP installment payments incurred, but not yet paid			712,014
Total actuarial accrued liability			11,134,637,484
Actuarial value of assets			8,096,436,929
Unfunded actuarial accrued liability			\$3,038,200,555
Funded Ratio			72.7%

Judicial Plan

Actuarial Present Value June 30, 2013 for	Actuarial Present Value	Portion Covered by Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active members			
Service retirement benefits based on services rendered before and likely to be rendered after valuation date	\$202,444,730	\$53,973,242	\$148,471,488
Disability benefits likely to be paid to present active members who become totally and permanently disabled	846,935	895,585	(48,650)
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	4,371,129	2,337,577	2,033,552
Refunds likely to be paid to present active members	39,274	36,350	2,924
Active member totals	\$207,702,068	\$57,242,754	150,459,314
Retired lives			274,911,416
Terminated-vested members			9,406,185
Member on Leave of Absence			289,552
Members on LTD			311,891
Total actuarial accrued liability			435,378,358
Actuarial value of assets			111,140,339
Unfunded actuarial accrued liability			\$324,238,019
Funded Ratio			25.5%



Statistical SECTION

Statistical Section

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SUMMARY

Plan Membership

Membership in the pension trusts administered by MOSERS increased by 1,849. Active members decreased by 497, retired members and their beneficiaries increased by 1,840, and terminated-vested members increased by 506. Membership data for the last ten years ended June 30, 2013, can be found on page 145. Page 148 depicts the location of benefit recipients, showing that the majority remain in the state of Missouri after retirement.

Valuation Assets vs. Pension Liabilities

The charts on pages 140-144 graphically represent the funding progress of the pension plans for the ten years ended June 30, 2013. The area charts in the middle of the pages show the portion of the pension liabilities that are unfunded compared to the portion covered by assets in the trust funds. The charts on the bottom of the pages illustrate the funded ratio of the plans for the ten years ended June 30, 2013.

The existence of the unfunded actuarial accrued liabilities is not necessarily an indication of financial problems, but the fluctuations are important and must be monitored and controlled.

The remainder of this section contains various statistical and historical data considered useful in evaluating the condition of the plans.

All nonaccounting data is taken from MOSERS' internal sources except for that information which is derived from the actuarial valuations (pages 140-145, 149, and 158-159). Member data may differ between some schedules since the valuations are performed using data as of May 31 each year.

Changes in Net Position

Last Ten Fiscal Years

	2004	2005	2006	2007
MSEP				
<i>Additions</i>				
Employer contributions	\$ 164,691,836	\$194,524,059	\$227,233,195	\$ 239,488,751
Employee contributions	0	0	0	0
Member service purchases	3,426,367	4,122,001	3,072,315	3,460,923
Service transfers in	166,510	29,397	161,613	172,936
Investment income (net of expenses)	873,793,645	727,341,314	728,526,971	1,283,573,438
Other	469,959	1,231,658	501,512	542,266
Total additions to plan net position	1,042,548,317	927,248,429	959,495,606	1,527,238,314
<i>Deductions</i>				
Benefits	367,248,099	367,431,297	400,169,563	447,240,771
Refunds	8,585	0	1,341	0
Service transfers out	529,177	199,201	133,866	51,980
Administrative expenses	5,694,082	6,228,609	6,486,597	6,689,710
Total deductions from plan net position	373,479,943	373,859,107	406,791,367	453,982,461
Transfer from ALJLAP plan	0	18,157,148	0	0
Change in net position	\$ 669,068,374	\$571,546,470	\$552,704,239	\$1,073,255,853
ALJLAP				
<i>Additions</i>				
Employer contributions	\$ 945,950	\$ 1,124,924	\$ 0	\$ 0
Investment income (net of expenses)	2,344,262	2,057,375	0	0
Other	1,261	3,484	0	0
Total additions to plan net position	3,291,473	3,185,783	0	0
<i>Deductions</i>				
Benefits	1,003,355	749,197	0	0
Administrative expenses	15,276	17,618	0	0
Total deductions from plan net position	1,018,631	766,815	0	0
Transfer to MSEP plan	0	(18,157,148)	0	0
Change in net position	\$2,272,842	\$(15,738,180)	\$ 0	\$ 0
Judicial Plan				
<i>Additions</i>				
Employer contributions	\$ 20,636,314	\$ 21,852,985	\$ 22,401,569	\$ 23,745,467
Employee contributions	0	0	0	0
Investment income (net of expenses)	5,800,076	5,409,107	5,933,531	11,356,312
Other	3,119	9,160	4,085	4,798
Total additions to plan net position	26,439,509	27,271,252	28,339,185	35,106,577
<i>Deductions</i>				
Benefits	17,658,269	18,396,397	19,091,587	20,595,504
Administrative expenses	37,796	46,321	52,830	59,187
Total deductions from plan net position	17,696,065	18,442,718	19,144,417	20,654,691
Change in net position	\$ 8,743,444	\$ 8,828,534	\$ 9,194,768	\$ 14,451,886
Internal Service Fund				
<i>Operating revenues</i>				
Premium receipts	\$ 25,771,703	\$ 27,305,305	\$ 26,415,236	\$ 27,101,931
Deferred compensation receipts	0	0	0	0
Miscellaneous income	436,489	436,489	436,501	436,502
Total operating revenues	26,208,192	27,741,794	26,851,737	27,538,433
<i>Operating expenses</i>				
Premium disbursements	25,736,083	27,271,948	26,379,919	27,063,815
Deferred compensation disbursements	0	0	0	0
Premium refunds	35,620	33,357	35,317	38,116
Administrative expenses	474,040	466,531	487,699	527,040
Total operating expenses	26,245,743	27,771,836	26,902,935	27,628,971
<i>Non-operating revenues</i>				
Investment income	24,353	49,326	85,124	117,729
Change in net position	\$ (13,198)	\$ 19,284	\$ 33,926	\$ 27,191

2008	2009	2010	2011	2012	2013
\$ 249,770,156	\$ 252,105,008	\$ 251,226,187	\$ 263,418,048	\$ 263,373,924	\$ 274,655,284
0	0	0	599,761	4,955,399	9,698,883
3,085,133	3,235,999	3,576,954	2,814,551	2,869,085	3,475,123
38,069	28,075	10,009	142,248	2,675,339	2,446,627
110,627,355	(1,508,376,715)	859,898,512	1,395,677,299	158,102,123	778,008,348
572,274	619,060	639,901	659,474	448,463	489,193
364,092,987	(1,252,388,573)	1,115,351,563	1,663,311,381	432,424,333	1,068,773,458
479,853,891	511,466,555	543,284,289	597,424,954	611,522,451	646,708,308
0	0	3,106	0	123,709	622,341
251,443	0	462,970	17,745,828	588,180	1,911,665
6,950,878	7,088,483	7,064,544	7,054,581	7,017,057	7,575,883
487,056,212	518,555,038	550,814,909	622,225,363	619,251,397	656,818,197
0	0	0	0	0	0
\$ (122,963,225)	\$(1,770,943,611)	\$ 564,536,654	\$1,041,086,018	\$(186,827,064)	\$ 411,955,261
\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
\$ 26,215,309	\$ 27,725,882	\$ 27,029,198	\$ 27,702,682	\$ 26,324,526	\$ 28,330,649
0	0	0	59,958	149,859	211,936
1,043,940	(15,847,382)	9,909,718	17,460,050	2,061,916	10,724,252
5,506	6,504	7,374	8,250	5,849	6,743
27,264,755	11,885,004	36,946,290	45,230,940	28,542,150	39,273,580
22,058,085	23,232,088	24,230,545	25,488,531	26,821,412	27,802,871
66,880	74,473	81,414	88,253	91,514	104,428
22,124,965	23,306,561	24,311,959	25,576,784	26,912,926	27,907,299
\$ 5,139,790	\$ (11,421,557)	\$ 12,634,331	\$ 19,654,156	\$ 1,629,224	\$ 11,366,281
\$ 27,957,666	\$ 28,990,057	\$ 29,098,799	\$ 28,829,638	\$ 28,578,326	\$ 28,961,637
60,393,973	75,661,047	69,143,267	54,221,226	17,500,476	0
536,493	1,027,380	1,039,369	981,404	608,187	480,120
88,888,132	105,678,484	99,281,435	84,032,268	46,686,989	29,441,757
27,927,265	28,968,981	29,077,825	28,804,638	28,556,036	28,930,950
60,371,802	75,683,218	69,143,267	54,221,226	17,500,476	0
30,401	21,076	20,974	24,999	22,291	30,687
708,100	819,581	797,020	826,809	778,529	805,457
89,037,568	105,492,856	99,039,086	83,877,672	46,857,332	29,767,094
77,396	20,755	9,816	11,071	11,068	12,075
\$ (72,040)	\$ 206,383	\$ 252,165	\$ 165,667	\$ (159,275)	\$ (313,262)

Deductions from Net Position for Benefits and Refunds by Type

Last Ten Fiscal Years

MSEP

	FY04	FY05	FY06	FY07	FY08
Type of benefit					
Retirement	\$295,200,937	\$314,623,851	\$338,449,307	\$366,185,990	\$393,328,057
Survivors	21,930,438	24,251,854	26,944,984	29,340,464	31,894,702
Disability	102,696	82,246	62,324	42,273	36,825
Lump sum	320,267	342,720	459,398	556,568	454,643
BackDROP	49,693,761	28,130,626	34,253,550	51,115,476	54,139,664
Total benefits	\$367,248,099	\$367,431,297	\$400,169,563	\$447,240,771	\$479,853,891
Refunds	\$ 8,585	\$ 0	\$ 1,341	\$ 0	\$ 0
	FY09	FY10	FY11	FY12	FY13
Type of benefit					
Retirement	\$421,847,017	\$448,880,110	\$476,841,741	\$504,555,055	\$533,962,629
Survivors	34,615,979	37,718,898	39,968,601	42,963,959	46,659,381
Disability	33,812	33,403	29,191	29,503	27,255
Lump sum	272,189	409,787	293,147	229,650	191,320
BackDROP and service transfers	54,697,557	56,705,060	98,038,103	64,332,464	67,779,388
Total benefits	\$511,466,554	\$543,747,258	\$615,170,783	\$612,110,631	\$648,619,973
Refunds	\$ 0	\$ 3,106	\$ 0	\$ 123,709	\$ 622,341

ALJLAP*

	FY04	FY05	FY06	FY07	FY08
Type of benefit					
Retirement	\$ 840,963	\$ 616,370	\$ 0	\$ 0	\$ 0
Survivors	162,392	132,827	0	0	0
Total benefits	\$1,003,355	\$ 749,197	\$ 0	\$ 0	\$ 0

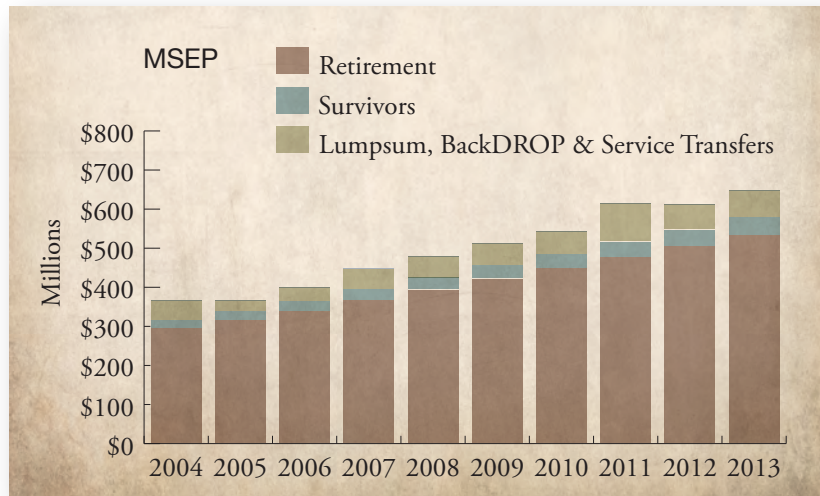
**ALJLAP Plan transitioned to the MSEP Plan in fiscal year 2005*

Judicial Plan

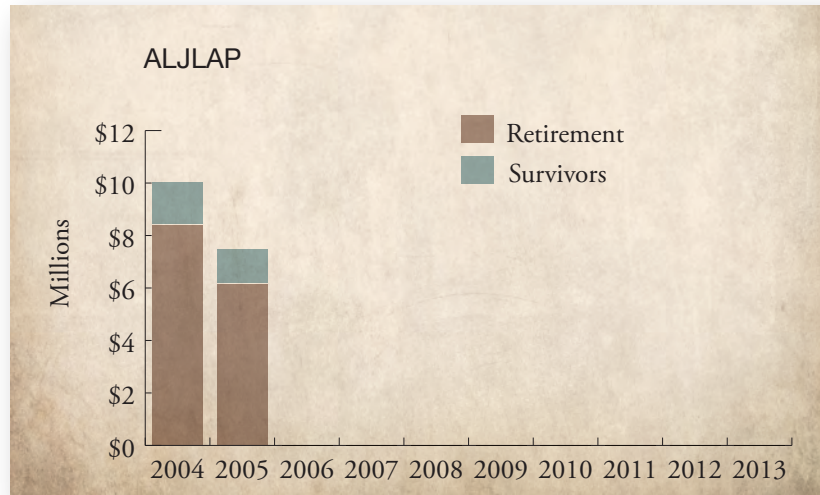
	FY04	FY05	FY06	FY07	FY08
Type of benefit					
Retirement	\$ 14,913,678	\$ 15,513,182	\$ 15,989,341	\$ 17,135,426	\$ 18,342,676
Survivors	2,744,591	2,883,215	3,070,746	3,433,078	3,715,409
Disability	0	0	31,500	27,000	0
Total benefits	\$ 17,658,269	\$ 18,396,397	\$ 19,091,587	\$ 20,595,504	\$ 22,058,085
	FY09	FY10	FY11	FY12	FY13
Type of benefit					
Retirement	\$ 19,143,753	\$ 19,784,720	\$ 21,025,904	\$ 22,284,844	\$ 23,123,702
Survivors	4,088,335	4,445,825	4,462,627	4,536,569	4,679,169
Disability	0	0	0	0	0
Total benefits	\$ 23,232,088	\$ 24,230,545	\$ 25,488,531	\$ 26,821,413	\$ 27,802,871

Deductions from Net Position for Benefits and Refunds by Type

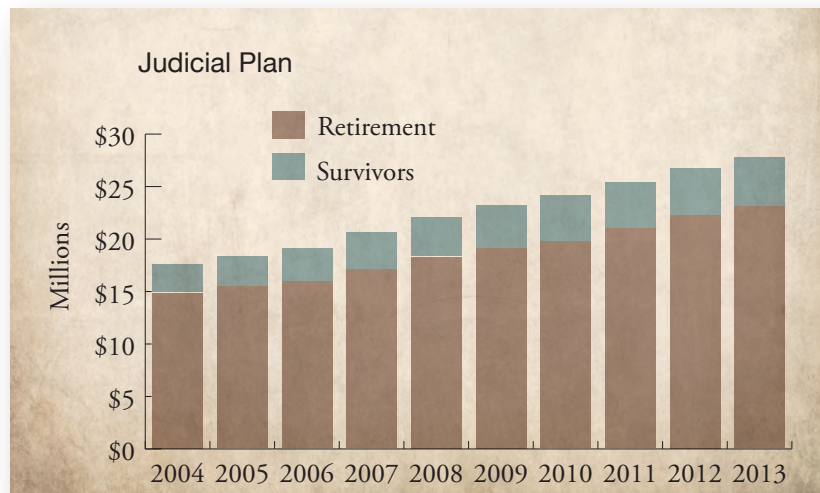
Last Ten Fiscal Years



Disability benefits are included, but amounts are too minimal to display visually in graph.



The ALJLAP was transitioned to the MSEP during FY05.



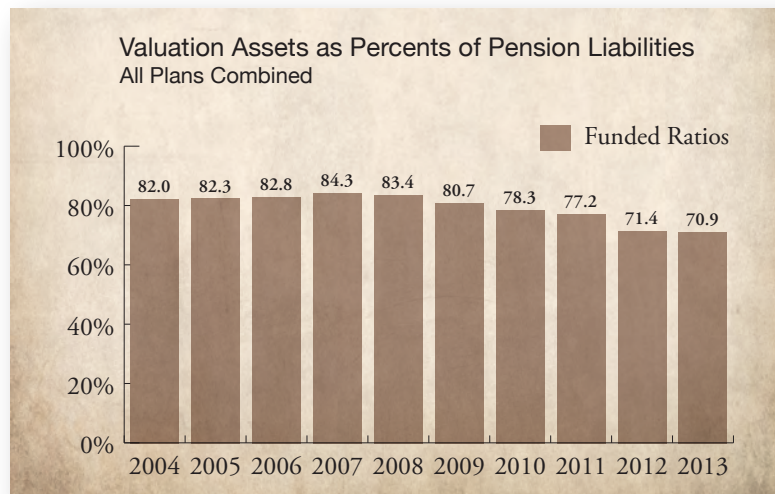
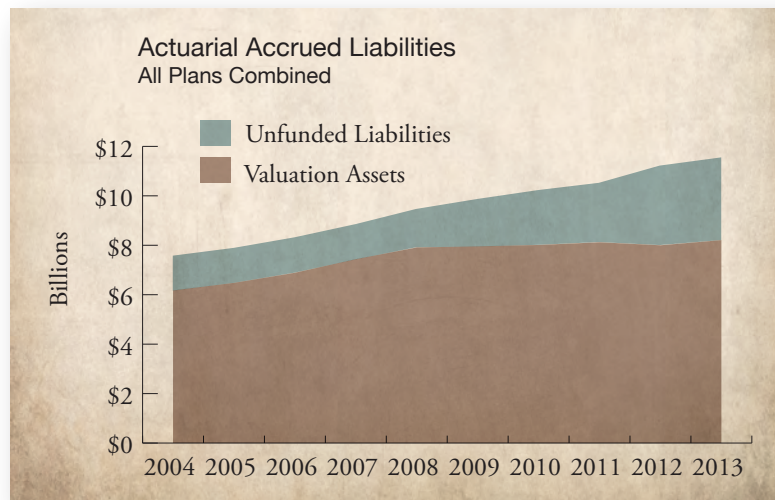
Disability benefits are included, but amounts are too minimal to display visually in graph.

Valuation Assets (Smoothed Market) vs. Pension Liabilities

Pension Trust Funds - Last Ten Fiscal Years

All Plans Combined

Fiscal Year	Dollars in Billions			Funded Ratios
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	
2004	\$6.1735	\$1.3573	\$ 7.5308	82.0%
2005	6.4795	1.3908	7.8703	82.3
2006	6.8883	1.4339	8.3222	82.8
2007	7.4392	1.3879	8.8271	84.3
2008	7.9117	1.5714	9.4831	83.4
2009	7.9574	1.9065	9.8639	80.7
2010	8.0124	2.2228	10.2352	78.3
2011	8.1210	2.3960	10.5170	77.2
2012	7.9994	3.2076	11.2070	71.4
2013	8.2075	3.3624	11.5700	70.9

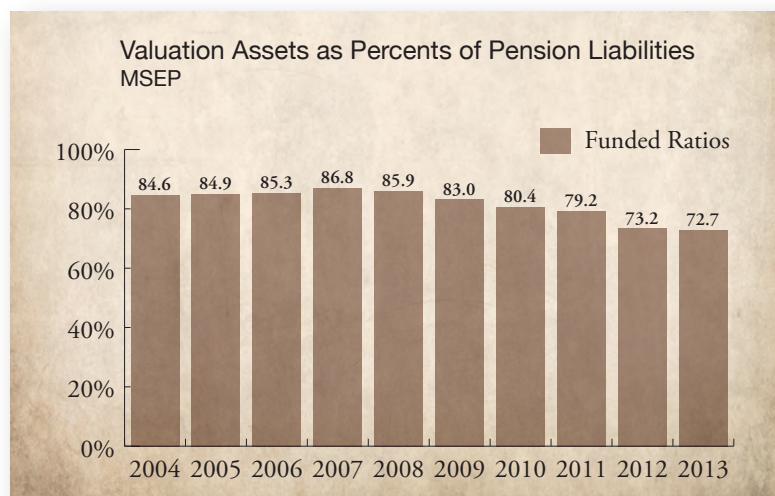
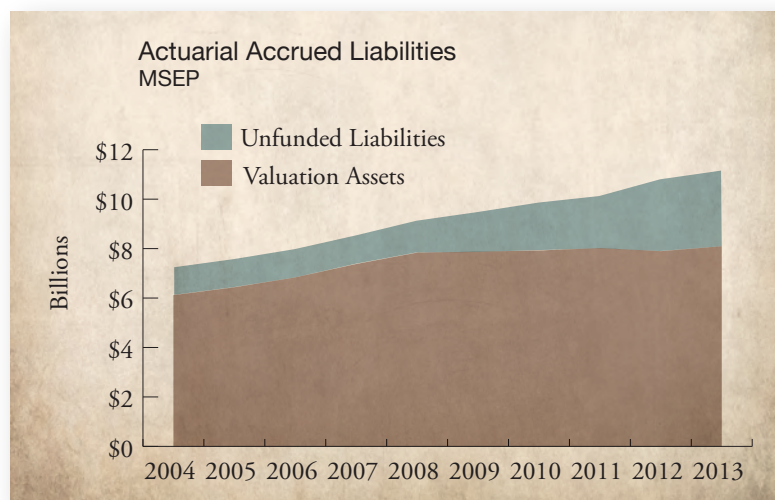


Valuation Assets (Smoothed Market) vs. Pension Liabilities

Ten Years Ended June 30, 2013

MSEP

Fiscal Year	Dollars in Billions			Funded Ratios
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	
2004	\$6.1182	\$1.1118	\$ 7.2300	84.6%
2005	6.4353	1.1427	7.5780	84.9
2006	6.8366	1.1766	8.0132	85.3
2007	7.3773	1.1231	8.5004	86.8
2008	7.8385	1.2898	9.1283	85.9
2009	7.8761	1.6187	9.4948	83.0
2010	7.9234	1.9298	9.8532	80.4
2011	8.0225	2.1010	10.1240	79.2
2012	7.8972	2.8965	10.7937	73.2
2013	8.0964	3.0382	11.1346	72.7



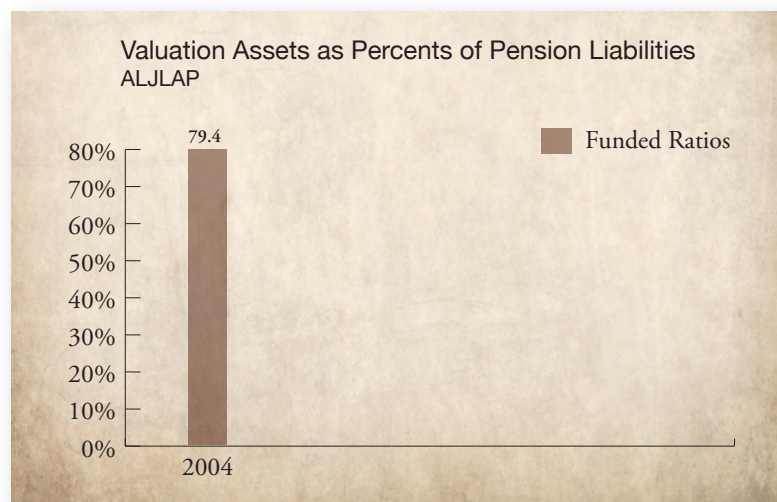
Valuation Assets (Smoothed Market) vs. Pension Liabilities

Pension Trust Funds - Last Ten Fiscal Years

ALJLAP*

Fiscal Year	Dollars in Billions			Funded Ratios
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	
2004	\$0.0162	0.0042	\$0.0204	79.4%

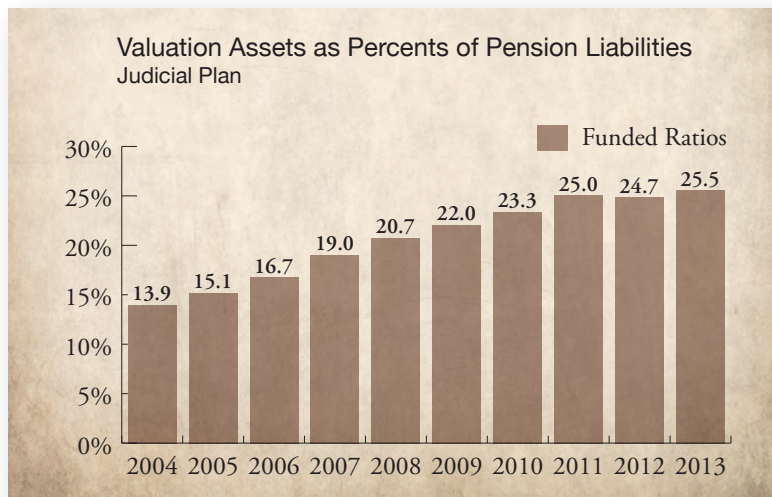
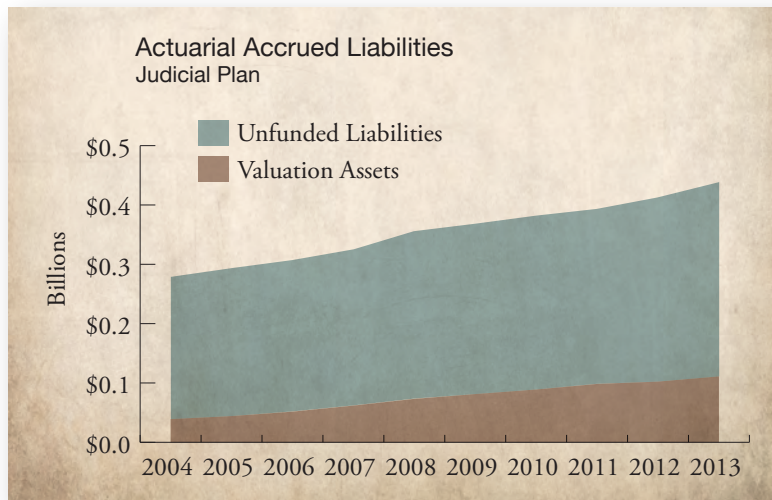
* Assets and liabilities transferred to MSEP during fiscal year 2005.



Valuation Assets (Smoothed Market) vs. Pension Liabilities Ten Years Ended June 30, 2013

Judicial Plan

Fiscal Year	Dollars in Billions			Funded Ratios
	Valuation Assets	Unfunded Liabilities	Accrued Liabilities	
2004	\$0.0391	\$0.2413	\$0.2804	13.9%
2005	0.0442	0.2481	0.2923	15.1
2006	0.0517	0.2573	0.3090	16.7
2007	0.0619	0.2648	0.3267	19.0
2008	0.0732	0.2816	0.3548	20.7
2009	0.0813	0.2878	0.3691	22.0
2010	0.0890	0.2930	0.3820	23.3
2011	0.0984	0.2951	0.3935	25.0
2012	0.1023	0.3111	0.4133	24.7
2013	0.1111	0.3242	0.4354	25.5

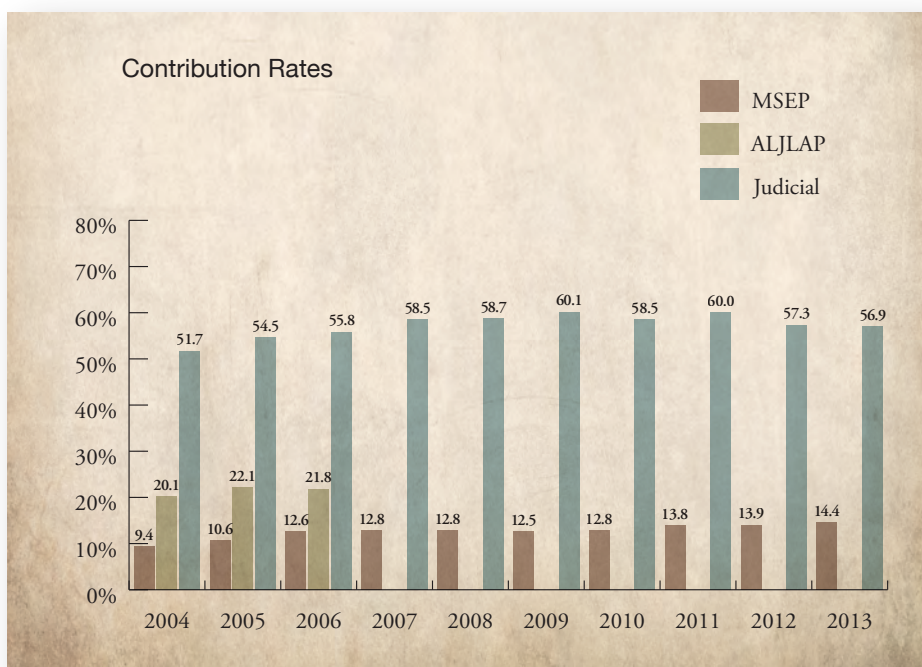


Contribution Rates as a Percent of Payroll

Last Ten Fiscal Years

Fiscal Year	MSEP	ALJLAP*	Judicial Plan
2004	9.35%	20.12%	51.68%
2005	10.64	22.13	54.51
2006	12.59	21.79	55.76
2007	12.78	0.00	58.48
2008	12.84	0.00	58.65
2009	12.53	0.00	60.07
2010	12.75	0.00	58.48
2011	13.81	0.00	60.03
2012	13.97	0.00	57.30
2013	14.45	0.00	56.92

* The ALJLAP was transitioned to MSEP during fiscal year 2005. After fiscal year 2006, the rate for MSEP includes the ALJ's.

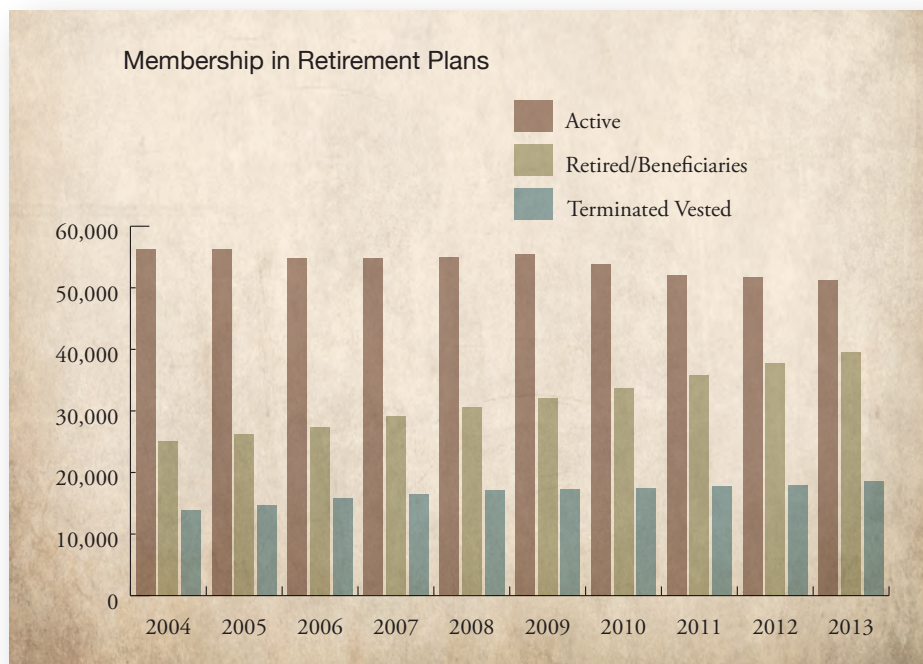


Membership in Retirement Plans

Last Ten Fiscal Years

Fiscal Year	Active*	Retired/Beneficiaries	Terminated-Vested	Totals
2004	56,362	25,179	13,898	95,439
2005	56,336	26,177	14,789	97,302
2006	54,887	27,450	15,829	98,166
2007	54,763	29,129	16,578	100,470
2008	54,943	30,572	17,123	102,638
2009	55,454	32,100	17,304	104,858
2010	53,880	33,716	17,441	105,037
2011	52,059	35,801	17,757	105,617
2012	51,730	37,796	18,075	107,601
2013	51,233	39,636	18,581	109,450

* Excludes members on leave of absence and long-term disability.



Benefit Recipients by Type of Retirement and Option Selected

June 30, 2013

MSEP

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Retirement						
		A	B	C	D	E	F	G
1-250	4,662	1,712	2,139	264	482	2	0	63
251-500	6,796	3,252	2,403	386	685	5	0	65
501-750	5,027	3,053	1,160	283	498	0	0	33
751-1000	4,342	3,315	488	173	339	0	0	27
1001-1250	3,644	3,069	213	124	227	0	0	11
1251-1500	2,974	2,630	103	79	156	0	0	6
1501-1750	2,443	2,220	55	47	119	0	0	2
1751-2000	2,100	1,959	30	36	74	0	0	1
Over 2000	7,563	7,080	51	120	310	0	0	2
Total	39,551	28,290	6,642	1,512	2,890	7	0	210

Judicial Plan

Amount of Monthly Benefit	Number of Benefit Recipients	Type of Retirement						
		A	B	C	D	E	F	G
1-250	3	0	2	0	1	0	0	0
251-500	10	0	7	0	1	0	0	2
501-750	8	0	3	0	3	0	0	2
751-1000	6	0	1	1	4	0	0	0
1001-1250	5	1	4	0	0	0	0	0
1251-1500	5	0	3	1	0	0	0	1
1501-1750	6	0	3	2	1	0	0	0
1751-2000	8	0	3	1	3	0	0	1
Over 2000	456	284	50	28	91	0	0	3
Total	507	285	76	33	104	0	0	9

Type of Retirement

A - Normal retirement

B - Early retirement

C - Survivor of active

D - Survivor of retired

E - Disability

F - Occupational disability (Water Patrol)

G - Ex-spouse

Option Selected									
1	2	3	4	5	6	7	8	9	10
0	15	168	163	269	0	952	521	39	2,535
7	34	226	142	340	4	1,391	1,038	24	3,590
8	35	111	59	240	2	1,087	1,145	7	2,333
10	22	63	41	295	0	946	1,005	2	1,958
12	17	58	28	350	0	776	707	1	1,695
7	9	44	28	351	1	633	496	0	1,405
9	9	31	18	340	1	479	358	0	1,198
10	2	31	19	311	1	460	249	1	1,016
70	18	72	35	1,058	0	2,066	1,040	0	3,204
133	161	804	533	3,554	9	8,790	6,559	74	18,934

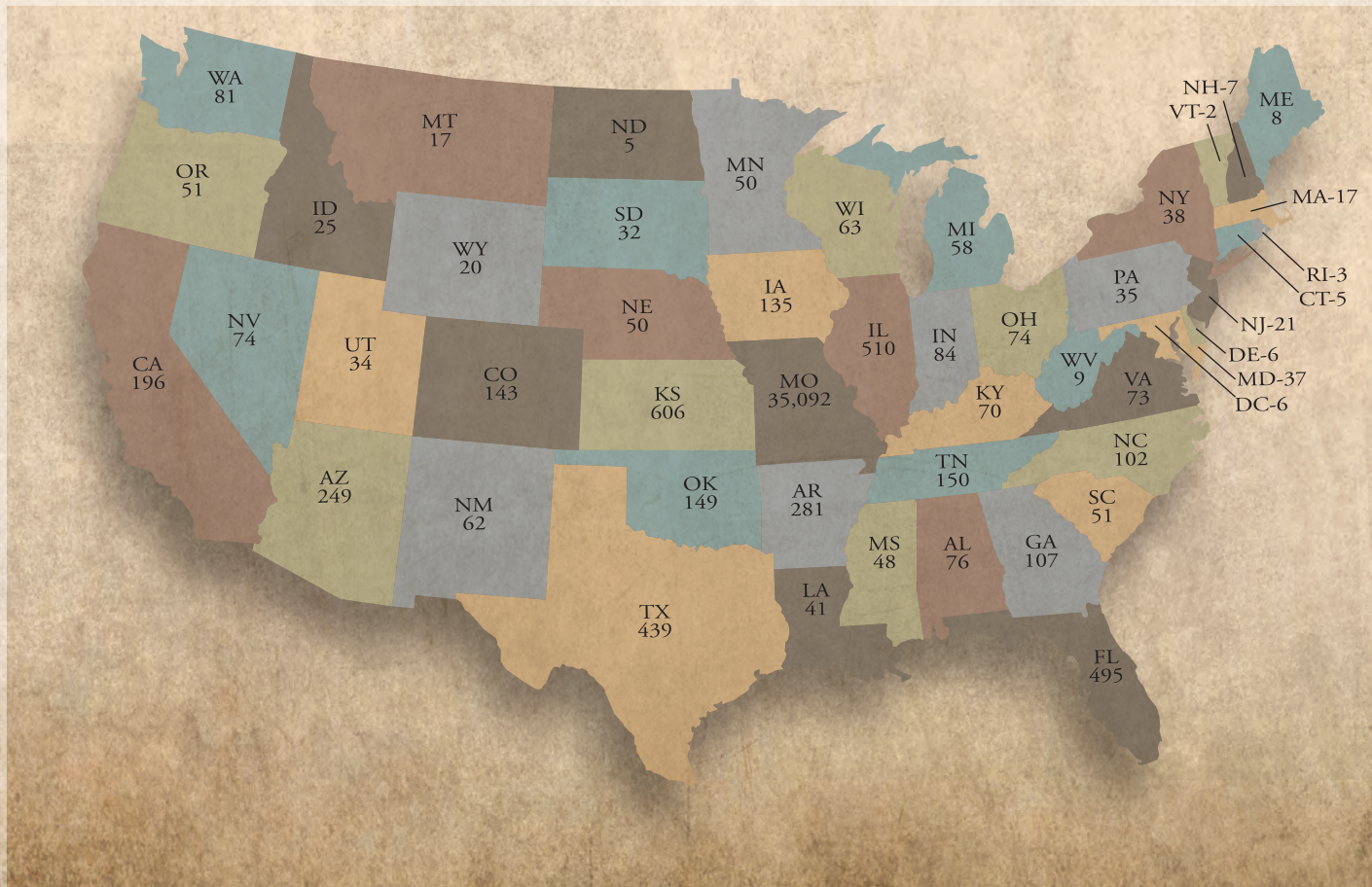
Option Selected									
1	2	3	4	5	6	7	8	9	10
3	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	2
5	0	0	0	1	0	0	0	0	2
3	0	0	0	1	0	0	0	0	2
5	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	2
4	0	0	0	0	0	0	0	0	2
5	0	0	0	1	0	0	0	0	2
422	0	0	0	25	0	0	0	1	8
458	0	0	0	28	0	0	0	1	20

Option Selected

- 1 - Automatic 50% joint & survivor
- 2 - 60 guaranteed payments
- 3 - 120 guaranteed payments
- 4 - 180 guaranteed payments
- 5 - 50% joint & survivor
- 6 - 75% joint & survivor
- 7 - 100% joint & survivor
- 8 - Unreduced 50% joint & survivor
- 9 - Automatic minor survivor
- 10 - No survivor option (includes pop-ups)

Distribution of Benefit Recipients by Location

June 30, 2013



Benefit Recipients Outside the Continental United States

12 Alaska	2 India	1 Puerto Rico
8 Hawaii	2 Ireland	1 Spain
5 Army Post Office	2 Israel	1 Sri Lanka
1 Argentina	2 Italy	1 Sweden
2 Australia	3 Mexico	1 Thailand
11 Canada	1 Marshall Islands	1 The Netherlands
1 Colombia, South America	1 Nigeria	2 United Arab Emirates
1 Costa Rica	1 P. R. China	3 United Kingdom
1 Germany	1 Panama	
1 Guam	1 Philippines	

Benefits Payable June 30, 2013
Tabulated by Option and Type of Benefit

MSEP

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
Service retirement			
Life annuity	5,149	\$ 66,373,044	\$12,890
50% joint and survivor	5,418	90,180,757	16,645
100% joint and survivor	2,747	53,525,512	19,485
5-year certain and life	131	1,424,628	10,875
10-year certain and life	142	1,344,087	9,465
Survivor beneficiary	2,300	26,936,597	11,712
Total	15,887	239,784,625	15,093
Disability retirement	7	26,544	3,792
Death-in-service	1,411	15,019,911	10,645
Grand totals	17,305	\$254,831,080	14,726

MSEP 2000

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
Service retirement			
Life annuity	13,344	\$193,656,491	\$14,513
50% joint and survivor	3,246	65,334,958	20,128
100% joint and survivor	3,508	59,728,927	17,026
5-year certain and life	31	457,437	14,756
10-year certain and life	566	6,024,789	10,645
15-year certain and life	440	3,994,142	9,078
Survivor beneficiary	593	5,478,804	9,239
Total	21,728	334,675,548	15,403
Death-in-service	106	364,354	3,437
Grand totals	21,834	\$335,039,902	15,345

Judicial Plan

Type of Benefit	Number	Annual Benefits	Average Annual Benefits
Service retirement			
Life annuity	1	\$ 81,360	\$81,360
50% joint and survivor	359	23,614,053	65,777
Survivor beneficiary	104	3,634,791	34,950
Total	464	27,330,204	58,901
Death-in-service	33	1,057,607	32,049
Grand totals	497	\$28,387,811	57,118

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2013

MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category							All Members
		<5	5-10	10-15	15-20	20-25	25-30	30+	
2004	Average monthly benefit	\$ 125	\$ 285	\$ 422	\$ 696	\$ 1,044	\$ 1,454	\$ 1,656	\$ 1,017
	Average final average salary	\$ 1,837	\$ 2,433	\$ 2,293	\$ 2,616	\$ 2,724	\$ 3,062	\$ 3,043	\$ 2,753
	Number of retirees	6	296	281	298	369	586	342	2,178
2005	Average monthly benefit	\$ 281	\$ 286	\$ 467	\$ 682	\$ 1,192	\$ 1,570	\$ 1,989	\$ 949
	Average final average salary	\$ 4,085	\$ 2,363	\$ 2,284	\$ 2,606	\$ 3,097	\$ 3,351	\$ 3,541	\$ 2,824
	Number of retirees	4	294	260	267	254	321	127	1,527
2006	Average monthly benefit	\$ 426	\$ 284	\$ 443	\$ 691	\$ 1,036	\$ 1,568	\$ 1,854	\$ 909
	Average final average salary	\$ 3,520	\$ 2,449	\$ 2,347	\$ 2,664	\$ 2,742	\$ 3,322	\$ 3,431	\$ 2,787
	Number of retirees	3	342	278	276	279	343	152	1,673
2007	Average monthly benefit	\$ 150	\$ 276	\$ 490	\$ 689	\$ 1,122	\$ 1,571	\$ 1,859	\$ 956
	Average final average salary	\$ 2,613	\$ 2,345	\$ 2,559	\$ 2,628	\$ 2,966	\$ 3,322	\$ 3,433	\$ 2,848
	Number of retirees	1	408	303	313	333	431	202	1,991
2008	Average monthly benefit	\$ 0	\$ 264	\$ 466	\$ 723	\$ 1,105	\$ 1,594	\$ 2,040	\$ 939
	Average final average salary	\$ 0	\$ 2,358	\$ 2,444	\$ 2,783	\$ 2,945	\$ 3,380	\$ 3,677	\$ 2,861
	Number of retirees	0	383	373	321	339	369	187	1,972
2009	Average monthly benefit	\$ 111	\$ 290	\$ 490	\$ 748	\$ 1,235	\$ 1,651	\$ 2,151	\$ 979
	Average final average salary	\$ 1,596	\$ 2,408	\$ 2,458	\$ 2,861	\$ 3,232	\$ 3,488	\$ 3,905	\$ 2,964
	Number of retirees	1	436	366	301	393	371	171	2,039
2010	Average monthly benefit	\$ 442	\$ 288	\$ 495	\$ 782	\$ 1,190	\$ 1,605	\$ 2,118	\$ 948
	Average final average salary	\$ 6,215	\$ 2,541	\$ 2,568	\$ 2,904	\$ 3,181	\$ 3,429	\$ 3,819	\$ 2,982
	Number of retirees	2	473	423	336	370	331	216	2,151
2011	Average monthly benefit	\$ 39	\$ 336	\$ 493	\$ 818	\$ 1,224	\$ 1,654	\$ 2,133	\$ 1,008
	Average final average salary	\$ 925	\$ 2,626	\$ 2,506	\$ 3,029	\$ 3,236	\$ 3,523	\$ 3,868	\$ 3,057
	Number of retirees	3	581	482	429	479	482	275	2,731
2012	Average monthly benefit	\$ 139	\$ 302	\$ 520	\$ 818	\$ 1,234	\$ 1,631	\$ 2,275	\$ 941
	Average final average salary	\$ 8,932	\$ 2,571	\$ 2,643	\$ 3,045	\$ 3,292	\$ 3,501	\$ 4,100	\$ 3,054
	Number of retirees	4	582	528	400	461	370	193	2,538
2013	Average monthly benefit	\$ 251	\$ 326	\$ 518	\$ 753	\$ 1,234	\$ 1,697	\$ 1,995	\$ 923
	Average final average salary	\$ 3,744	\$ 2,665	\$ 2,583	\$ 2,814	\$ 3,295	\$ 3,637	\$ 3,645	\$ 3,002
	Number of retirees	5	600	557	386	437	388	203	2,576
Ten Years Ended June 30, 2013									
	Average monthly benefit	\$ 215	\$ 298	\$ 487	\$ 747	\$ 1,170	\$ 1,594	\$ 1,989	\$ 959
	Average final average salary	\$ 3,855	\$ 2,499	\$ 2,495	\$ 2,816	\$ 3,096	\$ 3,387	\$ 3,617	\$ 2,927
	Number of retirees	29	4,395	3,851	3,327	3,714	3,992	2,068	21,376

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2013

General Employees in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category							All Members
		<5	5-10	10-15	15-20	20-25	25-30	30+	
2004	Average monthly benefit	\$ 125	\$ 274	\$ 419	\$ 683	\$ 1,044	\$ 1,454	\$ 1,656	\$ 1,016
	Average final average salary	\$ 1,837	\$ 2,421	\$ 2,291	\$ 2,612	\$ 2,724	\$ 3,061	\$ 3,043	\$ 2,751
	Number of retirees	6	290	280	295	369	585	342	2,167
2005	Average monthly benefit	\$ 229	\$ 262	\$ 427	\$ 676	\$ 1,173	\$ 1,570	\$ 1,943	\$ 933
	Average final average salary	\$ 4,449	\$ 2,338	\$ 2,215	\$ 2,602	\$ 3,100	\$ 3,351	\$ 3,565	\$ 2,812
	Number of retirees	3	283	255	265	250	321	123	1,500
2006	Average monthly benefit	\$ 426	\$ 275	\$ 431	\$ 691	\$ 1,036	\$ 1,564	\$ 1,846	\$ 905
	Average final average salary	\$ 3,520	\$ 2,427	\$ 2,340	\$ 2,664	\$ 2,742	\$ 3,318	\$ 3,423	\$ 2,780
	Number of retirees	3	339	275	276	279	342	151	1,665
2007	Average monthly benefit	\$ 0	\$ 259	\$ 485	\$ 685	\$ 1,122	\$ 1,567	\$ 1,859	\$ 955
	Average final average salary	\$ 0	\$ 2,327	\$ 2,556	\$ 2,627	\$ 2,966	\$ 3,323	\$ 3,433	\$ 2,847
	Number of retirees	0	397	301	312	333	430	202	1,975
2008	Average monthly benefit	\$ 0	\$ 259	\$ 461	\$ 723	\$ 1,105	\$ 1,594	\$ 2,040	\$ 939
	Average final average salary	\$ 0	\$ 2,353	\$ 2,441	\$ 2,783	\$ 2,945	\$ 3,380	\$ 3,677	\$ 2,861
	Number of retirees	0	380	370	321	339	369	187	1,966
2009	Average monthly benefit	\$ 111	\$ 264	\$ 470	\$ 744	\$ 1,232	\$ 1,649	\$ 2,134	\$ 972
	Average final average salary	\$ 1,596	\$ 2,374	\$ 2,434	\$ 2,861	\$ 3,233	\$ 3,486	\$ 3,881	\$ 2,955
	Number of retirees	1	422	362	300	392	370	170	2,017
2010	Average monthly benefit	\$ 442	\$ 284	\$ 493	\$ 778	\$ 1,190	\$ 1,600	\$ 2,092	\$ 942
	Average final average salary	\$ 6,215	\$ 2,538	\$ 2,567	\$ 2,904	\$ 3,181	\$ 3,430	\$ 3,788	\$ 2,978
	Number of retirees	2	470	422	335	370	330	214	2,143
2011	Average monthly benefit	\$ 39	\$ 302	\$ 484	\$ 807	\$ 1,221	\$ 1,645	\$ 2,115	\$ 1,001
	Average final average salary	\$ 925	\$ 2,607	\$ 2,501	\$ 3,029	\$ 3,237	\$ 3,518	\$ 3,846	\$ 3,053
	Number of retirees	3	553	477	425	478	479	273	2,688
2012	Average monthly benefit	\$ 139	\$ 293	\$ 503	\$ 814	\$ 1,234	\$ 1,631	\$ 2,275	\$ 938
	Average final average salary	\$ 8,932	\$ 2,566	\$ 2,621	\$ 3,046	\$ 3,292	\$ 3,501	\$ 4,100	\$ 3,050
	Number of retirees	4	575	524	398	461	370	193	2,525
2013	Average monthly benefit	\$ 169	\$ 301	\$ 502	\$ 746	\$ 1,234	\$ 1,697	\$ 1,995	\$ 921
	Average final average salary	\$ 4,244	\$ 2,653	\$ 2,568	\$ 2,813	\$ 3,295	\$ 3,637	\$ 3,645	\$ 3,001
	Number of retirees	3	574	551	384	437	388	203	2,540
Ten Years Ended June 30, 2013									
	Average monthly benefit	\$ 196	\$ 280	\$ 474	\$ 741	\$ 1,168	\$ 1,591	\$ 1,979	\$ 954
	Average final average salary	\$ 4,008	\$ 2,484	\$ 2,480	\$ 2,815	\$ 3,096	\$ 3,386	\$ 3,610	\$ 2,923
	Number of retirees	25	4,283	3,817	3,311	3,708	3,984	2,058	21,186

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2013

Legislators in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category							All Members
		<5	5-10	10-15	15-20	20-25	25-30	30+	
2004	Average monthly benefit	\$ 0	\$ 797	\$ 1,306	\$ 1,959	\$ 0	\$ 0	\$ 0	\$ 1,197
	Average final average salary	\$ 0	\$ 2,993	\$ 2,993	\$ 2,993	\$ 0	\$ 0	\$ 0	\$ 2,993
	Number of retirees	0	6	1	3	0	0	0	10
2005	Average monthly benefit	\$ 435	\$ 910	\$ 1,379	\$ 1,742	\$ 2,409	\$ 0	\$ 3,411	\$ 1,650
	Average final average salary	\$ 2,993	\$ 2,993	\$ 2,993	\$ 2,993	\$ 2,898	\$ 0	\$ 2,803	\$ 2,946
	Number of retirees	1	11	3	1	4	0	4	24
2006	Average monthly benefit	\$ 0	\$ 871	\$ 1,524	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,263
	Average final average salary	\$ 0	\$ 2,993	\$ 2,993	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,993
	Number of retirees	0	2	3	0	0	0	0	5
2007	Average monthly benefit	\$ 150	\$ 873	\$ 1,306	\$ 1,959	\$ 0	\$ 3,484	\$ 0	\$ 1,113
	Average final average salary	\$ 2,613	\$ 2,993	\$ 2,993	\$ 2,993	\$ 0	\$ 2,993	\$ 0	\$ 2,969
	Number of retirees	1	11	2	1	0	1	0	16
2008	Average monthly benefit	\$ 0	\$ 871	\$ 1,306	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,045
	Average final average salary	\$ 0	\$ 2,993	\$ 2,993	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,993
	Number of retirees	0	3	2	0	0	0	0	5
2009	Average monthly benefit	\$ 0	\$ 910	\$ 1,496	\$ 1,995	\$ 2,395	\$ 0	\$ 0	\$ 1,150
	Average final average salary	\$ 0	\$ 2,993	\$ 2,993	\$ 2,993	\$ 2,993	\$ 0	\$ 0	\$ 2,993
	Number of retirees	0	13	3	1	1	0	0	18
2010	Average monthly benefit	\$ 0	\$ 876	\$ 1,496	\$ 2,245	\$ 0	\$ 3,242	\$ 0	\$ 1,602
	Average final average salary	\$ 0	\$ 2,993	\$ 2,993	\$ 2,993	\$ 0	\$ 2,993	\$ 0	\$ 2,993
	Number of retirees	0	3	1	1	0	1	0	6
2011	Average monthly benefit	\$ 0	\$ 1,000	\$ 1,512	\$ 2,021	\$ 2,744	\$ 3,242	\$ 0	\$ 1,266
	Average final average salary	\$ 0	\$ 2,993	\$ 2,993	\$ 2,993	\$ 2,993	\$ 2,993	\$ 0	\$ 2,993
	Number of retirees	0	28	4	4	1	1	0	38
2012	Average monthly benefit	\$ 0	\$ 1,069	\$ 1,621	\$ 2,225	\$ 0	\$ 0	\$ 0	\$ 1,295
	Average final average salary	\$ 0	\$ 2,993	\$ 2,993	\$ 2,993	\$ 0	\$ 0	\$ 0	\$ 2,993
	Number of retirees	0	7	2	1	0	0	0	10
2013	Average monthly benefit	\$ 374	\$ 907	\$ 1,513	\$ 2,120	\$ 0	\$ 0	\$ 0	\$ 1,036
	Average final average salary	\$ 2,993	\$ 2,993	\$ 2,993	\$ 2,993	\$ 0	\$ 0	\$ 0	\$ 2,993
	Number of retirees	2	25	5	2	0	0	0	34
Ten Years Ended June 30, 2013									
	Average monthly benefit	\$ 333	\$ 930	\$ 1,465	\$ 2,026	\$ 2,463	\$ 3,323	\$ 3,411	\$ 1,250
	Average final average salary	\$ 2,898	\$ 2,993	\$ 2,993	\$ 2,993	\$ 2,930	\$ 2,993	\$ 2,803	\$ 2,984
	Number of retirees	4	109	26	14	6	3	4	166

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2013

Elected Officials in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category							All Members	
		<5	5-10	10-15	15-20	20-25	25-30	30+		
2004	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0	0	0
2005	Average monthly benefit	\$ 0	\$ 0	\$ 4,218	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,218
	Average final average salary	\$ 0	\$ 0	\$ 10,065	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 10,065
	Number of retirees	0	0	2	0	0	0	0	0	2
2006	Average monthly benefit	\$ 0	\$ 2,009	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,009
	Average final average salary	\$ 0	\$ 8,979	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 8,979
	Number of retirees	0	1	0	0	0	0	0	0	1
2007	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0	0	0
2008	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0	0	0
2009	Average monthly benefit	\$ 0	\$ 3,336	\$ 4,852	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,094
	Average final average salary	\$ 0	\$ 8,979	\$ 9,703	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,341
	Number of retirees	0	1	1	0	0	0	0	0	2
2010	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0	0	0
2011	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0	0	0
2012	Average monthly benefit	\$ 0	\$ 0	\$ 3,781	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,781
	Average final average salary	\$ 0	\$ 0	\$ 8,093	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 8,093
	Number of retirees	0	0	2	0	0	0	0	0	2
2013	Average monthly benefit	\$ 0	\$ 0	\$ 4,489	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,489
	Average final average salary	\$ 0	\$ 0	\$ 8,979	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 8,979
	Number of retirees	0	0	1	0	0	0	0	0	1
Ten Years Ended June 30, 2013										
	Average monthly benefit	\$ 0	\$ 2,673	\$ 4,223	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,835
	Average final average salary	\$ 0	\$ 8,979	\$ 9,166	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,120
	Number of retirees	0	2	6	0	0	0	0	0	8

Note: COLA increases are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2013

Uniformed Water Patrol in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category							All Members	
		<5	5-10	10-15	15-20	20-25	25-30	30+		
2004	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,743	\$ 0	\$ 1,743	
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 3,628	\$ 0	\$ 3,628	
	Number of retirees	0	0	0	0	0	1	0	1	
2005	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 1,267	\$ 0	\$ 0	\$ 0	\$ 1,267	
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 3,254	\$ 0	\$ 0	\$ 0	\$ 3,254	
	Number of retirees	0	0	0	1	0	0	0	1	
2006	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,848	\$ 3,090	\$ 2,969	
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,657	\$ 4,710	\$ 4,684	
	Number of retirees	0	0	0	0	0	1	1	2	
2007	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	
	Number of retirees	0	0	0	0	0	0	0	0	
2008	Average monthly benefit	\$ 0	\$ 0	\$ 750	\$ 0	\$ 0	\$ 0	\$ 0	\$ 750	
	Average final average salary	\$ 0	\$ 0	\$ 2,541	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,541	
	Number of retirees	0	0	1	0	0	0	0	1	
2009	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,351	\$ 5,113	\$ 3,732	
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,173	\$ 7,902	\$ 6,037	
	Number of retirees	0	0	0	0	0	1	1	2	
2010	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,886	\$ 4,886	
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 7,184	\$ 7,184	
	Number of retirees	0	0	0	0	0	0	2	2	
2011	Average monthly benefit	\$ 0	\$ 0	\$ 721	\$ 0	\$ 0	\$ 3,086	\$ 4,553	\$ 3,200	
	Average final average salary	\$ 0	\$ 0	\$ 2,964	\$ 0	\$ 0	\$ 5,077	\$ 6,912	\$ 5,388	
	Number of retirees	0	0	1	0	0	2	2	5	
2012	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 959	\$ 0	\$ 0	\$ 0	\$ 959	
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 2,794	\$ 0	\$ 0	\$ 0	\$ 2,794	
	Number of retirees	0	0	0	1	0	0	0	1	
2013	Average monthly benefit	\$ 0	\$ 69	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 69	
	Average final average salary	\$ 0	\$ 1,291	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,291	
	Number of retirees	0	1	0	0	0	0	0	1	
Ten Years Ended June 30, 2013										
	Average monthly benefit	\$ 0	\$ 69	\$ 735	\$ 1,113	\$ 0	\$ 2,623	\$ 4,514	\$ 2,748	
	Average final average salary	\$ 0	\$ 1,291	\$ 2,753	\$ 3,024	\$ 0	\$ 4,522	\$ 6,801	\$ 4,766	
	Number of retirees	0	1	2	2	0	5	6	16	

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2013

Administrative Law Judges and Legal Advisors in the MSEP

Members Retiring During Fiscal Year		Years Credited Service by Category							All Members	
		<5	5-10	10-15	15-20	20-25	25-30	30+		
2004	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0	0	0
2005	Average monthly benefit	\$ 0	\$ 0	\$ 3,750	\$ 0	\$ 3,584	\$ 0	\$ 0	\$ 3,626	\$ 3,626
	Average final average salary	\$ 0	\$ 0	\$ 7,500	\$ 0	\$ 7,169	\$ 0	\$ 0	\$ 7,251	\$ 7,251
	Number of retirees	0	0	1	0	3	0	0	4	4
2006	Average monthly benefit	\$ 1,088	\$ 1,669	\$ 0	\$ 0	\$ 0	\$ 3,333	\$ 0	\$ 2,030	\$ 2,030
	Average final average salary	\$ 7,836	\$ 5,933	\$ 0	\$ 0	\$ 0	\$ 6,667	\$ 0	\$ 6,812	\$ 6,812
	Number of retirees	1	1	0	0	0	1	0	3	3
2007	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Number of retirees	0	0	0	0	0	0	0	0	0
2008	Average monthly benefit	\$ 0	\$ 0	\$ 2,040	\$ 3,968	\$ 0	\$ 0	\$ 0	\$ 2,683	\$ 2,683
	Average final average salary	\$ 0	\$ 0	\$ 4,081	\$ 7,936	\$ 0	\$ 0	\$ 0	\$ 5,366	\$ 5,366
	Number of retirees	0	0	2	1	0	0	0	3	3
2009	Average monthly benefit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,200	\$ 0	\$ 0	\$ 4,200	\$ 4,200
	Average final average salary	\$ 0	\$ 0	\$ 0	\$ 0	\$ 8,400	\$ 0	\$ 0	\$ 8,400	\$ 8,400
	Number of retirees	0	0	0	0	2	0	0	2	2
2010	Average monthly benefit	\$ 823	\$ 0	\$ 2,827	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,159	\$ 2,159
	Average final average salary	\$ 8,172	\$ 0	\$ 5,851	\$ 0	\$ 0	\$ 0	\$ 0	\$ 6,625	\$ 6,625
	Number of retirees	1	0	2	0	0	0	0	3	3
2011	Average monthly benefit	\$ 0	\$ 0	\$ 3,236	\$ 4,101	\$ 0	\$ 0	\$ 0	\$ 3,524	\$ 3,524
	Average final average salary	\$ 0	\$ 0	\$ 6,433	\$ 8,202	\$ 0	\$ 0	\$ 0	\$ 7,023	\$ 7,023
	Number of retirees	0	0	2	1	0	0	0	3	3
2012	Average monthly benefit	\$ 0	\$ 2,493	\$ 0	\$ 4,378	\$ 0	\$ 4,204	\$ 0	\$ 3,692	\$ 3,692
	Average final average salary	\$ 0	\$ 8,756	\$ 0	\$ 8,756	\$ 0	\$ 8,408	\$ 0	\$ 8,640	\$ 8,640
	Number of retirees	0	1	0	1	0	1	0	3	3
2013	Average monthly benefit	\$ 0	\$ 0	\$ 2,657	\$ 0	\$ 4,134	\$ 0	\$ 4,450	\$ 3,747	\$ 3,747
	Average final average salary	\$ 0	\$ 0	\$ 5,314	\$ 0	\$ 8,267	\$ 0	\$ 8,900	\$ 7,494	\$ 7,494
	Number of retirees	0	0	1	0	1	0	1	3	3
Ten Years Ended June 30, 2013										
	Average monthly benefit	\$ 956	\$ 2,081	\$ 2,827	\$ 4,149	\$ 3,881	\$ 3,769	\$ 4,450	\$ 3,184	\$ 3,184
	Average final average salary	\$ 8,004	\$ 7,345	\$ 5,693	\$ 8,298	\$ 7,762	\$ 7,537	\$ 8,900	\$ 7,153	\$ 7,153
	Number of retirees	2	2	8	3	6	2	1	24	24

Note: COLA increases are excluded from the above for comparison purposes.

Average Monthly Benefit Amounts

Ten Years Ended June 30, 2013

Judicial Plan

Members Retiring During Fiscal Year		Years Credited Service by Category							All Members
		<5	5-10	10-15	15-20	20-25	25-30	30+	
2004	Average monthly benefit	\$ 855	\$ 3,586	\$ 4,500	\$ 4,061	\$ 4,597	\$ 0	\$ 4,500	\$ 3,998
	Average final average salary	\$ 5,129	\$ 8,000	\$ 9,000	\$ 8,121	\$ 9,194	\$ 0	\$ 9,000	\$ 8,350
	Number of retirees	1	1	2	4	3	0	1	12
2005	Average monthly benefit	\$ 0	\$ 0	\$ 4,388	\$ 4,500	\$ 4,142	\$ 4,306	\$ 4,396	\$ 4,310
	Average final average salary	\$ 0	\$ 0	\$ 9,000	\$ 9,000	\$ 8,284	\$ 8,600	\$ 8,792	\$ 8,649
	Number of retirees	0	0	2	1	3	5	2	13
2006	Average monthly benefit	\$ 592	\$ 1,946	\$ 4,500	\$ 4,000	\$ 0	\$ 4,396	\$ 0	\$ 2,930
	Average final average salary	\$ 5,875	\$ 6,564	\$ 9,000	\$ 8,000	\$ 0	\$ 8,792	\$ 0	\$ 7,496
	Number of retirees	2	2	1	2	0	2	0	9
2007	Average monthly benefit	\$ 207	\$ 2,121	\$ 3,995	\$ 4,243	\$ 4,390	\$ 4,071	\$ 4,167	\$ 3,756
	Average final average salary	\$ 5,875	\$ 7,889	\$ 7,990	\$ 8,486	\$ 8,833	\$ 8,143	\$ 8,333	\$ 8,213
	Number of retirees	2	5	5	14	6	7	3	42
2008	Average monthly benefit	\$ 381	\$ 2,045	\$ 4,120	\$ 4,828	\$ 5,132	\$ 4,593	\$ 5,186	\$ 4,080
	Average final average salary	\$ 2,742	\$ 6,203	\$ 8,276	\$ 9,656	\$ 10,264	\$ 9,186	\$ 10,373	\$ 8,517
	Number of retirees	1	2	6	3	3	2	1	18
2009	Average monthly benefit	\$ 524	\$ 1,786	\$ 3,663	\$ 4,693	\$ 5,286	\$ 5,127	\$ 5,020	\$ 3,456
	Average final average salary	\$ 6,103	\$ 7,469	\$ 7,811	\$ 9,336	\$ 10,572	\$ 10,255	\$ 10,040	\$ 8,385
	Number of retirees	6	2	7	6	3	3	1	28
2010	Average monthly benefit	\$ 458	\$ 1,333	\$ 4,507	\$ 4,557	\$ 0	\$ 5,181	\$ 4,973	\$ 4,064
	Average final average salary	\$ 6,597	\$ 8,000	\$ 9,577	\$ 9,114	\$ 0	\$ 10,362	\$ 9,946	\$ 9,343
	Number of retirees	1	1	2	1	0	2	3	10
2011	Average monthly benefit	\$ 0	\$ 2,188	\$ 4,622	\$ 4,515	\$ 4,869	\$ 4,789	\$ 4,650	\$ 4,342
	Average final average salary	\$ 0	\$ 7,994	\$ 9,299	\$ 9,031	\$ 9,738	\$ 9,577	\$ 9,299	\$ 9,138
	Number of retirees	0	4	9	9	4	2	5	33
2012	Average monthly benefit	\$ 1,740	\$ 2,353	\$ 4,561	\$ 4,621	\$ 0	\$ 5,020	\$ 0	\$ 3,684
	Average final average salary	\$ 9,114	\$ 7,797	\$ 10,179	\$ 9,241	\$ 0	\$ 10,040	\$ 0	\$ 9,055
	Number of retirees	1	5	4	4	0	1	0	15
2013	Average monthly benefit	\$ 0	\$ 2,277	\$ 4,234	\$ 4,625	\$ 5,444	\$ 5,452	\$ 5,293	\$ 4,699
	Average final average salary	\$ 0	\$ 8,123	\$ 8,696	\$ 9,251	\$ 10,888	\$ 10,904	\$ 10,585	\$ 9,767
	Number of retirees	0	2	6	4	5	4	2	23
Ten Years Ended June 30, 2013									
	Average monthly benefit	\$ 584	\$ 2,173	\$ 4,247	\$ 4,437	\$ 4,834	\$ 4,648	\$ 4,709	\$ 3,968
	Average final average salary	\$ 5,979	\$ 7,630	\$ 8,750	\$ 8,867	\$ 9,679	\$ 9,295	\$ 9,417	\$ 8,712
	Number of retirees	14	24	44	48	27	28	18	203

Note: COLA increases are excluded from the above for comparison purposes.

Retirees and Beneficiaries Tabulated by Year of Retirement
As of June 30, 2013

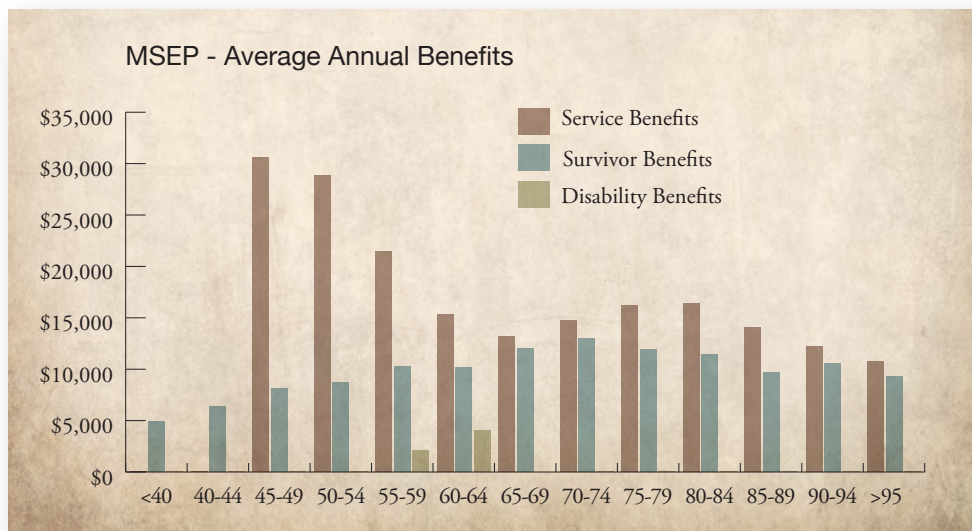
MSEP				Judicial Plan			
Fiscal Year of Retirement	Number	Total Annual Benefit	Average Monthly Benefit	Fiscal Year of Retirement	Number	Total Annual Benefit	Average Monthly Benefit
1973	4	\$ 29,409	\$ 613	1976 & prior	1	\$ 10,657	\$ 888
1974	3	22,750	632	1977	0	0	0
1975	3	15,503	431	1978	1	15,291	1,274
1976	15	98,950	550	1979	0	0	0
1977	16	143,352	747	1980	1	20,851	1,738
1978	24	145,304	505	1981	1	64,134	5,345
1979	22	143,170	542	1982	0	0	0
1980	29	272,601	783	1983	1	20,481	1,707
1981	52	518,665	831	1984	1	21,768	1,814
1982	76	694,305	761	1985	2	87,263	3,636
1983	77	844,356	914	1986	2	84,573	3,524
1984	110	984,948	746	1987	8	434,591	4,527
1985	127	1,411,196	926	1988	7	406,747	4,842
1986	167	1,508,723	753	1989	6	340,294	4,726
1987	212	2,397,936	943	1990	6	326,558	4,536
1988	265	3,409,516	1,072	1991	13	601,823	3,858
1989	317	4,614,819	1,213	1992	6	304,033	4,223
1990	313	4,344,505	1,157	1993	7	281,726	3,354
1991	433	7,138,064	1,374	1994	6	292,498	4,062
1992	465	7,289,369	1,306	1995	16	1,136,818	5,921
1993	570	8,625,531	1,261	1996	10	538,706	4,489
1994	571	8,895,828	1,298	1997	6	336,153	4,669
1995	776	12,864,020	1,381	1998	22	1,375,202	5,209
1996	786	13,473,320	1,428	1999	20	1,175,934	4,900
1997	812	13,914,734	1,428	2000	22	1,417,939	5,371
1998	982	16,848,101	1,430	2001	18	1,490,729	6,902
1999	1,084	19,091,823	1,468	2002	15	1,031,406	5,730
2000	1,183	20,518,115	1,445	2003	22	1,363,396	5,164
2001	2,334	39,511,095	1,411	2004	18	1,091,780	5,055
2002	1,693	25,446,409	1,253	2005	18	1,141,780	5,286
2003	1,776	28,697,097	1,347	2006	17	707,639	3,469
2004	2,370	37,663,546	1,324	2007	57	3,081,732	4,505
2005	1,738	25,444,614	1,220	2008	30	1,589,975	4,417
2006	1,905	27,026,559	1,182	2009	37	1,835,165	4,133
2007	2,242	32,815,981	1,220	2010	16	869,064	4,526
2008	2,240	31,888,945	1,186	2011	40	2,187,296	4,557
2009	2,335	33,969,749	1,212	2012	22	958,611	3,631
2010	2,451	34,550,180	1,175	2013	32	1,783,902	4,646
2011	3,085	45,838,554	1,238		507	\$28,426,515	\$4,672
2012	2,903	39,788,760	1,142				
2013	2,985	39,343,497	1,098				
	39,551	\$592,243,899	\$1,248				

Total Benefits Payable June 30, 2013
Tabulated by Attained Ages of Benefit Recipients

MSEP

Attained Ages	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Totals	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20					73	\$ 261,620	73	\$ 261,620
20-24					19	120,300	19	120,300
25-29					5	12,240	5	12,240
30-34					20	100,031	20	100,031
35-39					38	270,302	38	270,302
40-44					78	499,098	78	499,098
45-49	1	\$ 30,660			112	917,176	113	947,836
50-54	535	15,459,291			185	1,608,629	720	17,067,920
55-59	3,631	78,014,608	1	\$ 2,124	321	3,297,713	3,953	81,314,445
60-64	8,174	125,148,995	6	24,420	519	5,283,307	8,699	130,456,722
65-69	8,541	112,484,127			539	6,494,194	9,080	118,978,321
70-74	5,717	84,443,965			609	7,945,571	6,326	92,389,536
75-79	3,652	59,291,365			662	7,909,012	4,314	67,200,377
80-84	2,370	38,992,560			591	6,762,716	2,961	45,755,276
85-89	1,448	20,388,033			438	4,251,149	1,886	24,639,182
90-94	509	6,234,719			153	1,619,520	662	7,854,239
95	39	490,653			15	191,952	54	682,605
96	32	344,198			8	82,536	40	426,734
97	27	308,636			9	42,624	36	351,260
98	16	148,056			9	68,904	25	216,960
99	12	123,298			2	5,304	14	128,602
100	7	63,390			3	48,528	10	111,918
101	8	52,500			1	4,572	9	57,072
102	2	19,082			0	0	2	19,082
105	1	6,636			1	2,668	2	9,304
Totals	34,722	\$542,044,772	7	\$26,544	4,410	\$47,799,666	39,139	\$589,870,982

Average age at retirement: 60.3 years • Average age now: 69.4 years

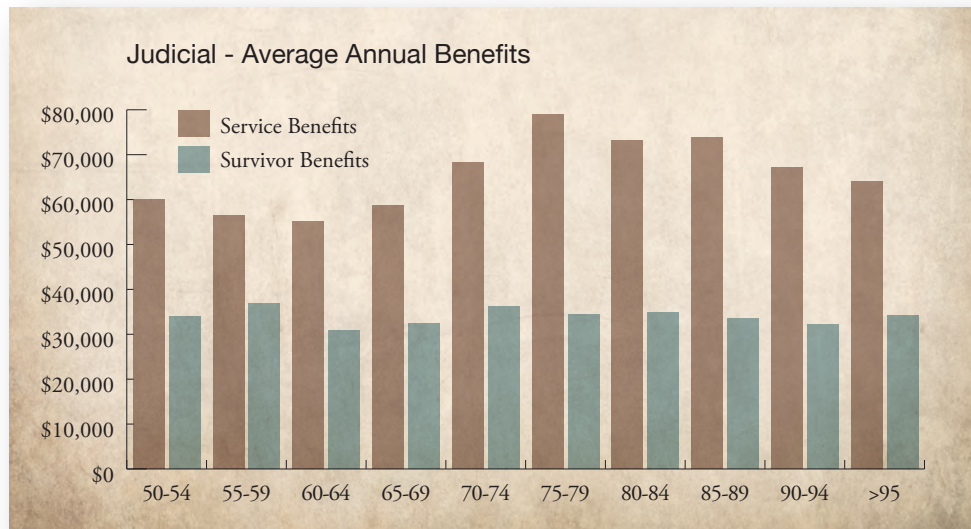


Total Benefits Payable June 30, 2013
Tabulated by Attained Ages of Benefit Recipients

Judicial Plan

Attained Ages	Service Retirement		Survivors and Beneficiaries		Totals	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
50-54	1	\$ 60,240	2	\$ 82,692	3	\$ 142,932
55-59	9	508,551	3	102,035	12	610,586
60-64	63	3,476,624	7	259,369	70	3,735,993
65-69	79	4,649,551	18	558,108	97	5,207,659
70-74	88	6,017,216	12	390,773	100	6,407,989
75-79	46	3,636,839	13	471,036	59	4,107,875
80-84	38	2,785,247	38	1,309,410	76	4,094,657
85-89	22	1,629,190	29	1,016,118	51	2,645,308
90-94	11	739,596	14	470,471	25	1,210,067
95 and over	3	192,360	1	32,388	4	224,748
Totals	360	\$23,695,414	137	\$4,692,400	497	\$28,387,814

Average age at retirement: 65.1 years • Average age now: 75.4 years



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